

```

agaaatcgtg gctctgaaga ccaagctgaa agagtgtgag gcctctaaag atcaaaacac 720
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<210> 446

<211> 1355

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<400> 446

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agaagtggag gagctcgccg aggaggtgct ggcggacaag cggcagattg tggacctgga 180
cactaaaagg aatcagaatc gagagggcct gagggccctg cagaaggatc tcagcctctc 240
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ccagctocaa ttttgcactt tttccctgct tgattccaag agtaggtgct gcctagcagc 1080
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378

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gtggatgcgc ctcttaccat atgacacgtg tcaagatgcc cttccgcccc ctctgaaagt 1200
ggggccccgc cagcactgct cgttactgtc tgccttcagt ggtctgaggt cccagtatga 1260
actgccgtga agtcaaaaact cttatgtgtt cattaagggc tcaataaatg ttagctgaat 1320
gaawaaaaaa aaaaaaaaaa amawaaaaaa aaaaaa 1355

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<210> 447

<211> 375

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (153)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (313)

<223> n equals a,t,g, or c

<400> 447

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tgcctctgtg tgtgtgcaag acagagagat aggcattttg tcaagtcagc tagttgccta 60
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gtctggaggt gagctaattg atgagtgaat atnagcagtg ggtgttcctc atctctttga 180
ggattttgcct cagagttcac taccaaggga tttctggaac taggwgccat tctttacatc 240
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caacgctaac acggg 375

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<210> 448

<211> 1393

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1360)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1383)

<223> n equals a,t,g, or c

<400> 448

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tcttttacat gtttaaattt aaaccattct tcgtgacccc ttttcttggg agattcatgg 60
caagaacgag aagaatgatg gtgcttggtt ggggatgtcc tgtctctctg aactttgggg 120
tcctatgcat taaataattt tcctgacgag ctcaagtgtc ccctctgggc tacaatccct 180
ggcggctggc cttcatccct tgggcaagca ttgcatacag ctcatggccc tccctctacc 240
ataccctcca cccccgttcg cctaagctcc cttctccggg aatttcatca tttcctagaa 300
cagccagaac atttgtgttc tatttctctg ttagtggtta accaaccatc tgttctaaaa 360

```



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gaagggctga actgatggaa ggaatgctgt tagcctgaga ctcaggaaga caacttctgc 420
agggtcactc cctggcttct ggaggaaaga gaaggagggc agtgctccag tggtagacaa 480
gtgagacata atggaatcag gcttcacctc caaggacacc tatctaagcc attttaaccc 540
tcgggattac ctagaaaaat attacaagtt tggttctagg cactctgcag aaagccagat 600
tcttaagcac cttctgaaaa atcttttcaa gatattctgc ctagacgggtg tgaagggaga 660
cctgctgatt gacatcggtc ctggccccac tatctatcag ctctctctctg cttgtgaatc 720
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gctgaagaaa gagccagagg cctttgactg gtccccagtg gtgacctatg tgtgtgatct 840
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gaggaagctg agcagacccc tgtgatgcct gtgacctcaa ttaaagcaat tcctttgacc 1320
tgtcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1380
aanaaaaaaa aaa 1393

```

<210> 449

<211> 1663

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (180)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (621)

<223> n equals a,t,g, or c

<400> 449

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ggacttgag aagttggtga ccagggtaaa agtaggcagc gagccagcaa aagactgttt 120
gccagcaaag ccctcagagg ccacctcaga ccggtcagag ggcagcagcc gggacgcagn 180
ggtagcgacg agaacgagga gtcgagcggt gtggattacg tggaggtgac ggtcggggag 240
gaggatgcga tctcagatag atcagatagc tggagtcagg ctgcggcaga aggtgtgtcg 300
gaactggctg aatcagactc cgactgcgtc cctgcagagg ctggccaggc ctagacaggg 360
aagtctgtta gaactgctgt gctgatcaac gggacgctcc gtctttgaag aaagaagaga 420
tggtctctcc ccagccatgg gccacccttg ccagtractc caagtggaac tacttagctc 480
gcgtgtgcct ggaargtgcg ggaagtccag cgactctcag acgcacctcc cagaggaccg 540
gtgggaattg ttcatagtgc caaagtccta mtactgcgtt ttcaatgggt cttgtacat 600
agtttgctcc tctgscctag nctcacctc ttgctatact ggraccgatt tgtacaatgt 660

```

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gggaattttg ttaccytttt aatcaagggc aacttccttt tccagcacta ccattgtaag 720
gttktttttca ggagggaggg staaccacct tgcttttctc ttttctcttt ttcttttttt 780
tattttttgtt ttattaattt ggggaaaggg gtgttagcat tagtgccatg atatctactg 840
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ccacactgcc ccccatgtga gtacrcgcga caagtcaaac gctaggaagt ttgaataaaa 1560
ccaatttttc taacttggtg ctcatttggt gtaactcaat aaagcaaaga ctaaaccattt 1620
ttataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1663

```

<210> 450

<211> 1380

<212> DNA

<213> Homo sapiens

<400> 450

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aaaatgccag gaatgttctt ctctgctaac ccaaaggaat tgaaaggaac cactcattca 120
cttctagacg acaaaatgca aaaaaggagg ccaaagactt ttggaatgga tatgaaagca 180
tacctgagat ctatgatccc acatctggaa tctggaatga aatcttccaa gtccaaggat 240
gtactttctg ctgctgaagt aatgcaatgg tctcaatctc tggaaaaact tcttgccaac 300
caaactggtc aaaatgtctt tggaagtttc ctaaagtctg aattcagtga ggagaatatt 360
gagttctggc tggcttggtga agactataag aaaacagagt ctgatctttt gccctgtaaa 420
gcagaagaga tatataaagc atttgtgcat tcagatgctg ctaaacaaat caatattgac 480
ttccgcactc gagaatctac agccaagaag attaaagcac caacccccac gtgttttgat 540
gaagcacaaa aagtcataata tactcttatg gaaaaggact cttatcccag gttcctcaaa 600
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cctggctgaa gggaattaac agatagtatc aagcgcagaa ggaatgtgcc agtatggctc 720
cctgggtgaa cagcttggtc ttttttgggt gtcttgacag gccagaaga acaaatgact 780
cagaatggat taacatgaaa gttatccagg cgcagagttg aagaagcata agcaagacaa 840
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aatatataga agcaatttct gttacatgt ccttgctact tttaaaaact tgcattttatt 1320
cctcagattt taaaaataaa taaataattc atttaaaaaa aaaaaaaaaa aaaactcgag 1380

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<210> 451

<211> 926

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (687)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (865)

<223> n equals a,t,g, or c

<400> 451

```

gttgcatctt cttgctgtcc tagaaaaaat gatttcacag ggtaacaata acaaaaatgg 60
aaagaatgag actggtaata acaacaacaa agatggatct aatcataaag ctgaaagtgg 120
agctctaata gaagctgcaa aatcaaagat acatcagtac aaagtacgag cttatatcca 180
aatgaagtct ctgaaagcat gtaaaaggga aatcaagtca gtcatgaata cagctggaaa 240
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gcacaatttg ggaatattct actttaaaaa ggctctgcaa gagaatgaca atgtctgtgc 480
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tcctcgccctc tggctacggc tggctgnaat gctgcattgc tgccaataag gggacttctg 720
aacaagaaac taaaggcctt cccagcaaaa aaggaattgt acagtctatt gttggkcaag 780
gctatcatcg taaaatagtt ttggcatcac agtctataca gaatactgtt tatraatggt 840
ggggcagtc tccggccattc ctgtnagcca gtatgggagt tttgcagccc atatgttctc 900
agaaatgcct ggtttgctgg ttacct                                     926

```

<210> 452

<211> 1642

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (147)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (150)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1608)

<223> n equals a,t,g, or c

<400> 452

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ggcacgagggc gcgagaggac gtgctctgcc agccagtggg aaggcaggcc gcgcgcgcgg 60
gagcgcgggra ggatcggcgg ctgcgggtca ctgggccctg gctcggttcc ccgcaccccg 120
gggctcacac ttacccgcgc ggaggancan cggccgggtg tccaccccca tccctgcgcc 180
agtctcctcg attcccctcg ctctgagccg ggagagccga acagctgaag agagttcact 240
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aatatttcag tcaataagtt ttaacagaga gaaactccct tccagcgaag tggtgaaatt 420
tggccgaaat tccaacatct gtcattatac ttttcaggac aaacaggttt cccgagttca 480
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accaaattag aagtttgact tttatgtgtt atacacaatc ttaaaatttc acgaattcac 1560
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aaaaaaaaaa aaaaaaaaaa aa 1642

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<210> 453

<211> 2254

<212> DNA

<213> Homo sapiens

<400> 453

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ccaggagcag aatttttctg accgcttcct ccctgaatga cgaggctgcc caagctctgg 180
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gaggatggca ttagccccc tgggttgctg ctggaccagt acctggagtg tcaggaagct 300
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cgccctcccc agcagatggt gcagagcctg agcacctcta aggagctgca gcgccagttc 1020
cacgtctacc agctccagca gctggatcag gaactcctga agctggagga tacagagaag 1080
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gagtttgatt ataaaaaaaa aaaaaaaaaa aaaa 2254

```

<210> 454

<211> 1931

<212> DNA

<213> Homo sapiens

<400> 454

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gcgacggcga ccatagctct ccagggtcaat ggccagcaag gaggggggtc cgagccggcg 120
gcggcggcgg cagtgggtggc agcgggagac aaatggaaac ctccacaggg cacagactcc 180
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384

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<210> 455

<211> 771

<212> DNA

<213> Homo sapiens

<400> 455

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<210> 456

<211> 1169

<212> DNA

<213> Homo sapiens

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<221> misc feature

<222> (1164)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1167)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1169)

<223> n equals a,t,g, or c

<400> 456

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<210> 457

<211> 3249

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3234)

<223> n equals a,t,g, or c

<400> 457

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<210> 458

<211> 1916

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1895)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1902)

<223> n equals a,t,g, or c

<400> 458

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<210> 459

<211> 2773

<212> DNA

<213> Homo sapiens

<400> 459

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<210> 460

<211> 2031

<212> DNA

<213> Homo sapiens

<400> 460

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gtcctaaatc taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2031

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<210> 461

<211> 1839

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1496)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1832)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1839)

<223> n equals a,t,g, or c

<400> 461

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gcccaggccg agcacgatgc cccctaaaaa gggaggtgat ggaattaaac ccccccaat 180
cattggaaga tttggaacct cactgaaaat tggattgttt ggattgcaa atgttgggaa 240
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cactattgat cctaattgaga gcagagtacc tgtgccagat gaaagggttg actttctttg 360
tcaataccac aaaccagcaa gcaaaattcc tgcctttcta aatgtggttg atattgctgg 420
ccttgtgaaa ggagctcaca atgggcaggg cctggggaat gcttttttat ctcatattag 480
tgccgtgtgat ggcattcttc atctaacacg tgcttttgaa gatgatgata tcacgcacgt 540
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tcaaaaagaaa cctgttcgct tctatcatga ttggaatgac aaagagattg aagtgttgaa 780
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tctacagata atgcatgttt tacagtactc cagatgtcta cactcaataa aacatttgac 1740
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aaaaaaaaaa aaaaaaaacc ccgggggggg gncccaan 1839
```

<210> 462
<211> 779
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (26)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (731)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (737)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (759)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (762)
<223> n equals a,t,g, or c

<400> 462
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gaggcagggg agacaagcca ggcacgatgg ccaccttccc accagcaacc agcgccccc 180
agcagccccc agggccggag gacgaggact ccagcctgga tgaatctgac ctctatagcc 240
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attcagagag gaagaagcga ggggcacggc gctgagacag agctggagat gaggccagac 420
catggacact acaccagca atagagacgg gactgcggag gaaggaggac ccaggacagg 480
atccaggccg gcttgccaca cccccaccc ctaggactta ttcccgtga ctgagtctct 540
gaggggctac caggaaagcg cctccaaccc tagcaaaagt gcaagatggg gagtgagagg 600
ctgggaatgg agggcagaic caggaagatc ccccagaaaa gaaagctaca gaagaaactg 660
gggctcctcc aggggtggcag caacaataaa tagacacgca cggarccam aaaaaaaaaa 720
aaaagggsgg nccggancca attggcctaa agggggggnt tncaattaat gggccgggt 779

<210> 463
<211> 1717
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (27)
<223> n equals a,t,g, or c

<400> 463
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tgatctttga tgactattac wcataacagc actctagcac cttwtcttac tggcatggac 120
ttcctcatgg actgctactt catggatgat agcttcattg ctttgggtag ggatttaagg 180
tagtcaaggg gaaaatacgc attttattac aggtottaac atcaggcaac tttcaacttt 240
aaaacccttt gtgaaaaatg tggttatagc actatagctc tgatttttagg atggttaaatt 300
gttatattca ttggtggctt accttatcaa actgtgccat taatcctttc acagacatag 360
gtaaggaaga gaacaaccag tggattcagg ggacaattat ctatctccaa ataataaggc 420
tttatttctt gcagctaact ttttcagtga ttctagcaga tgccatctag tacatccttg 480
atcttgttts tttcgtgaga gatctcgcca tggcagcatc ttgttaagta agtgtaattg 540

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cacatgcaca aaagacttaa ctagctttac atttagcagt cagttgggta gattagggtt 600
catagtaaat gaataggaat agaaagaata ggaagtgttt ttattttcca gtagtaattc 660
cgtggattcc atttgaccca gtttactatc agttcagttc aggtagattt ggttcaactt 720
ttgggtggtt ttggctctag gatattcttg actttaatat cctagaactt actgagtctt 780
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<210> 464

<211> 828

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (787)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (819)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (827)

<223> n equals a,t,g, or c

<400> 464

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ggcggcggag gctgaccccc taggacgctt cacgtgtccc gtgtgcttag aggtgtacga 120
gaagccggta caggtgccct gcggacacgt cttttgctct gcatgcctgc aggaatgtct 180
gaagccgaag aagcctgtct gtggggtgtg tcgcagcgct ctggcacctg gcgtccgagc 240
cgtggagctc gagcggcaga tcgagagcac agagacttct tgccatggct gccgtaagaa 300
tttcttccctg tccaagatcc ggtcccacgt ggctacttgt tccaaatacc agaattacat 360
catggaaggt gtgaaggcca ccattaagga tgcattctct cagccaagga atgttccaaa 420
ccgttacacc tttccttgct cttactgtcc tgagaagaac tttgatcagg aaggacttgt 480
ggaacactgc aaattattcc atagcacgga taccaaatct gtggtttgtc cgatatgtgc 540

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ctcgatgccc tggggagacc ccaactaccg cagcgccaac ttcagagagc acatccagcg 600
ccggcaccgg ttttcttatg acacttttgt ggattatgat gttgatgaag aggacatgat 660
gaatcagggtg ttgcagcgct ccattcatcga ccagtgaagc gagtccgtgc ttgctatctg 720
tctcatgtta cagagcttcc attacatatt aaacgtgaaa tctatgaaaa aaaaaaaggg 780
ggggggnccc ggttacccca atttcggccc tattaggtna agtcgtna 828

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<210> 465

<211> 1173

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (137)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1166)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1168)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1171)

<223> n equals a,t,g, or c

<400> 465

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ggtcgttact ctctgacctt tatctacact gggctgtcca agcatgttga agacgtcccc 120
gcgtttcagg cccttgntca ctcaatgacc tccagttctt tagatacaac agtaaagaca 180
ggaagtctca gcccatggga ctctggagac aggtggaagg aatggaggat tggaagcagg 240
acagccaact tcagaaggcc agggaggaca tctttatgga gacctgaaa gacatygtgg 300
agtattacaa cgacagtaac gggctctcacg tattgcaggg aagggttggg tgtgagatcg 360
agaataacag aagcagcggg cattctggaa atattactat gatggaaagg actacattga 420
attcaacaaa gaaatcccag cctgggtccc cttcgaccca gcagcccaga taaccaagca 480
gaagtgggag gcagaaccag tctacgtgca gcgggccaag gcttacctgg aggaggagtg 540
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atcagagtca atggatccac aaggcctgag gagcagtggt gggggacaga caggagggtg 1020
atgtggagac cgaagactgg gatgcctgtc ttgagtagac ttggacccaa aaaatcatct 1080
caccttgagc ccacccccac cccattgtct aatctgtaga agctaataaa taatcatccc 1140

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tccttgcccta gcaaaaaaaaa aaaaangngg ngg

1173

<210> 466

<211> 521

<212> DNA

<213> Homo sapiens

<400> 466

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agcagaagaa gaagcgggacc ttccgcaagt tcacctaccg cggcgtggac ctcgaccagc 120
tgctggacat gtccctacgag cagctgatgc agctgtacag tgcgcgccag gcggcggctg 180
aaccggggcc tgcggcggaa gcagcactcc ctgctgaagc gcctgcgcaa ggccaagaag 240
gaggcgccgc ccatggagaa gccggaagtg gtgaagacgc acctgcggga catgatcatc 300
ctacccgaga tgggtgggcag catgggtgggc gtytacaacg gcaagacctt caaccagggtg 360
gagatcaagc ccgagatgat cggccactac ctgggcgagt tctccatcac ctacaagccc 420
gtaaagcatk gccggcccg catcggggcc acccactsct cccgmttcat ccctctcaag 480
taatggctca gytaataaag gcgsacatga ctccaaaaaa a 521
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<210> 467

<211> 1428

<212> DNA

<213> Homo sapiens

<400> 467

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tgagcaccct tacctgaccc catccccga atcccctgag cactgggcca gccctcacc 180
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ggcctgagac gctcgtcagt tcttagatct tgggggccta aagagacccc cgtcctgcct 420
cctttctttc tctgtctctt ccttcctttt agtctttttc atcctcttct ctttccacca 480
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tttacatttt gtatagaaac aaattcattt aaacaaactt attattatta ttttttacia 780
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<210> 468

<211> 3463

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1187)

<223> n equals a,t,g, or c

<400> 468

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gccctgccgc gcccctcccg caacctggag gtcaagttca ccaagatatt tatcaacaat 180
gaatggcacg aatccaagag tgggaaaaag ttgtctacat gtaacccttc aactcgggag 240
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caggttgcct tccagagggg ctccgcatgg cgccggctgg atgcctgag tcgtgggcgg 360
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<210> 469

<211> 621

<212> DNA

<213> Homo sapiens

<400> 469

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ctgttgatcc aggggtctaa tcaggcctgt gtctgcctcc ttcttgaata gccagtgaa 180
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gaccagtgtt gtctcccggg acattgacac agcagccaag tttattggtg ctggggcagc 300
cacagtgggt gtggctggtt caggggctgg cattggaacc gtggttggtg gcttgatcat 360
tggtctatgcc aggaaccctg ctctcaagca gcagctcttc tcctatgcca ttcttggtt 420
tgccctgtct gaggccatgg ggcttttctg tttgatggtc gccttcctca tcctcttcgc 480
catgtgaggg tccatggggg gtcaccggcc tggtgctact gcaactccac accattcttg 540
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aaaaaaaaaa aaaaaaaaaa a 621
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<210> 470

<211> 1833

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (126)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (386)

<223> n equals a,t,g, or c

<220>

<221> misc feature
 <222> (524)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (1798)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (1812)
 <223> n equals a,t,g, or c

<400> 470
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 acgaggtgtc ggcgcgggag cagcacttcc acagccaagt gcgggagtcc acgatatgtt 240
 tccttctttt tgccattctc tacgttgttt cctacttcat catcacaaga tacaagagaa 300
 aatcagatga acaagaagat gaagatgcc a t cgtcaacag gatttcgttg tttttgagca 360
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 tccttctctg atcacggcct ggaaactctc aagacaagag gcgaaaaaag gcttcagcat 1200
 gggaaagaaa tttggtgtat cccgctgtta tggttctcct tcttattgag acatccatct 1260
 cggtcctctt ggtggcttgt aatattcttt gcctattggt tgatgaaaca gcaatgcca 1320
 aaggaacaag ggggsctgga ataggaaatg cctctctttc tacgtttggt tttgtgggag 1380
 ctgcgcttga aatcattttg attttctatc ttatggtgtc ctctgttggt ggcttctata 1440
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 tggggcttca taaacttcac ttaccaaata cttcaaggga ttcagaaaca gccaaagcctt 1620
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 gaccgagaac tccagattca cgacattcct gtcccatgta gaagcatttc cattcatccg 1740
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 cttggctatg gntgatcttt tttaaattta act 1833

<210> 471
 <211> 3202
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (4)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (3160)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (3180)
 <223> n equals a,t,g, or c

<400> 471
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 ggctcatagt cgtatcaggg gtcgggacca aggcccaaat gtctgtgccc ttcaacagat 180
 tttgggcacc aaaaagaaat acttcagcac ttgtaagaac tggataaaaa agtccatctg 240
 tggacagaaa acgactgtgt tatatgaatg ttgccctggt tatatgagaa tgggaaggaat 300
 gaaaggctgc ccagcagttt tgcccattga ccatgtttat ggcaactctgg gcacgtgagg 360
 agccaccaca acgcagcgtt attctgacgc ctcaaaactg agggaggaga tcgagggaaa 420
 gggatccttc acttactttg caccgagtaa tgaggcttgg gacaacttgg attctgatat 480
 ccgtagaggt ttggagagca acgtgaatgt tgaattactg aatgctttac atagtcacat 540
 gattaataag agaattgtga ccaaggactt aaaaaatggc atgattattc cttcaatgta 600
 taacaatttg gggcttttca ttaaccatta tcctaattggg gttgtcactg ttaattgtgc 660
 tcgaatcatc catgggaacc agattgcaac aaatgggtgt gtccatgtca ttgaccgtgt 720
 gcttacacaa attggtacct caattcaaga ctccattgaa gcagaagatg acctttcatc 780
 ttttagagca gctgccatca catcggacat attggaggcc cttggaagag acggtcactt 840
 cacactcttt gctcccacca atgaggcttt tgagaaactt ccacgagggtg tcctagaaaag 900
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 ccagtgttct gagtctatta tgggaggagc agtctttgag acgctggaag gaaatacaat 1020
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 ggaaaccatc ggaggcaaac agctcagagt ctctgtatat cgtacagctg tctgcattga 1440
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 agaaattctg atacgggaca aaaaatgctt tcaaaacatc attctttatc acctgacacc 1740
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 aggaagcaaa atctttctga aagaagttaa tgatacactt ctggtgaatg aattgaaatc 1860
 aaaagaatct gacatcatga caacaaatgg tgtaattcat gttgtagata aactcctcta 1920
 tccagcagac acacctgttg gaaatgatca actgctggaa atacttaata aattaatcaa 1980
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tttacgcggg gcatgccgac gt 3202

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<210> 472

<211> 941

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (927)

<223> n equals a,t,g, or c

<400> 472

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agcaaggctc tattcctagt ctccagccat gcctgtggca acctgagccc gctctcagca 180
cattggaccc aggcagatgy aaaaaattca cagaactatg atttggactc aagggtttgt 240
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gcatttgatg agacagggcy gaatactgca gttttcctcc tagaaatcmt ctggggcatt 360
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aagaatatca tgaccagctt tcaggcctcc tgaagtatat ctctcacatt gtcctgttct 540
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agaagaggaa gaagaccaag gccaccatg cccagggctc agcagggagc tgctggaggt 720
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<210> 473

<211> 1279

400

<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1144)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1273)
<223> n equals a,t,g, or c

<400> 473
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aaagaagagt ttctccagag gaagcaatca aatgtgaaga caaattcaca aaatccaaaa 180
ctgtttatag cattcttcgt catgttgctg aggtgttaga atacaccaag gatgagcagc 240
tggaagcct attccagagg actgcctggg tctttgatga caagtacaag agacctggat 300
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tttncagggg gcatccaagg caaacaatcc caatctttct atataaaatg tattcaagca 1200
aacatcaaat aaatttcttg gatattttaa aaaaaaaaaa aaaaaggggg gggccttaaa 1260
gaaccaagtt tantttggg 1279

<210> 474
<211> 3209
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (427)
<223> n equals a,t,g, or c

<400> 474
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gacctggtct tgaactcctt ggcggaagag aagctgcarg ccagcgtgag gtgcttggct 120
acgcacgggtc gcttcctgga aattggcaaa ttcgacctt ctcagaacca mccgctcggc 180

| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| atggctatct | tcctgaagaa | cgtgacatcc | acgggggtcct | actggatgcg | ttcttcaaac | 240 |
| gagagcagt | ctgactggcg | ggaggtgtgg | gcgcttgtgc | aggccggcat | ccgggatggg | 300 |
| gtggtacggc | ccctcaagt | cacggtgttc | catggggccc | aggtggagga | cgccttccgc | 360 |
| tacatggccc | aagggaagca | cattggcaaa | gtcgtcgtgc | aggtgcttgc | ggaggagccg | 420 |
| gasagtngct | gaagggggcc | aaacccaagc | tgatgtcggc | catctccaag | accttctgcc | 480 |
| cggcccacaa | gagctacatc | atcgtctggt | gtctgggtgg | cttcggcctg | gagttggcgc | 540 |
| agtggctgat | acagcgtggg | gtgcagaagc | tcgtgttgac | ttctcgctcc | gggatccgga | 600 |
| caggctacca | ggccaagcag | gtccgcccgt | ggaggcgcca | gggcgtacag | gtgcaggtgt | 660 |
| ccaccagcaa | catcagctca | ctggaggggg | cccggggsct | cattgccgag | gcggcgcast | 720 |
| tggggcccgt | ggcggcgtct | tcaacctggc | cgtggtcttg | agagatggct | tgctggagaa | 780 |
| ccagacccca | gagttcttcc | aggacgtctg | caagcccaag | tacagcggca | ccctgaacct | 840 |
| ggacaggggt | acccgagagg | cgtgccttga | gctggactac | tttgtggtct | tctcctctgt | 900 |
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| gcgtatctgt | gagaaacgcc | ggcacgaagg | cctcccaggc | ctggccgtgc | agtggggcgc | 1020 |
| catcggcgac | gtgggcattt | tggtggagac | gatgagcacc | aacgacacga | tcgtcagtgg | 1080 |
| cacgctgccc | cagcgcattg | cgtcctgcct | ggaggtgctg | gacctcttcc | tgaaccagcc | 1140 |
| ccacatggtc | ctgagcagct | ttgtgctggc | tgagaaggct | gcggcctata | gggacaggga | 1200 |
| cagccagcgg | gacctggtgg | aggcctgggc | acacatyctg | ggcatccgcg | acttggtctg | 1260 |
| tgtcaacctg | gacagctcac | tggcggacct | gggcctggac | tcgctcatga | gcgtggaggt | 1320 |
| gcgccagacg | ctggagcgtg | agctcaacct | ggtgctgtcc | gtgcgcgagg | tgccggcaact | 1380 |
| cacgctccgg | aaactgcagg | agctgtcctc | aaaggcggat | gaggccagcg | agctggcatg | 1440 |
| ccccacgccc | aaggaggatg | gtctggccca | gcagcagact | cagctgaacc | tgcgctccct | 1500 |
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| gcccagcaga | gcccagcccc | caccacacaac | agcctcttcc | tgttcgacgg | ctcggcccacc | 1860 |
| tacgtactgg | cctacaccca | gagctaccgg | gcaaagctga | ccccaggctg | tgaggctgag | 1920 |
| gctgagacgg | aggccatatg | cttcttcgtg | cagcagttca | cggacatgga | gcacaacagg | 1980 |
| gtgctggagg | cgtctgtgcc | gctgaagggc | ctagaggagc | gtgtggcagc | cgccgtggac | 2040 |
| ctgatcatca | agagccacca | gggcctggac | cgccaggagc | tgagctttgc | ggcccgggtcc | 2100 |
| ttctactaca | agctgcgtgc | cgctgagcag | tacacaccca | aggccaagta | ccatggcaac | 2160 |
| gtgatgctac | tgcgcgccaa | gacgggtggc | gcctacggcg | aggacctggg | cgcggtactac | 2220 |
| aacctctccc | aggtatgcga | cgggaaagta | tccgtccacg | tcacgagggg | tgaccaccgc | 2280 |
| acgctgctgg | agggcagcgg | cctggagtcc | atcatcagca | tcacccacag | ctccctgggt | 2340 |
| gagccacgcg | tgagcgtgcg | ggagggctag | gcccgtgccc | ccgcctgcca | ccggaggtea | 2400 |
| ctccaccatc | cccaccccac | cccaccccac | ccccgccatg | caacgggatt | gaagggctct | 2460 |
| gccggtggga | ccctgtccgg | ccagtgcca | ctgccccccg | aggctgctag | acgtagggtgt | 2520 |
| taggcattgtc | ccaccacccc | gccgcctccc | acggcacctc | ggggacacca | gagctgccga | 2580 |
| cttgagagact | cctggtctgt | gaagagccgg | tggtgcccg | gcccgcagga | actgggctgg | 2640 |
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| gcctgctggc | tgcggccccc | tctcggccag | gcattggctc | agcccgtctga | gtgggggggtc | 2880 |
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| ttttgaaatt | tactgtaact | gtcagtgtac | acgtctggac | cccgtttcat | ttttacacca | 3120 |
| atgttgtaaa | aatgctgctc | tcagcctccc | acaattaaac | cgcatgtgat | ctccaaaaaa | 3180 |
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<210> 475
 <211> 833
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (9)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (15)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (29)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (58)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (73)
 <223> n equals a,t,g, or c

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 gaggaatggg atttaatgac ctttgatgcc aacccatatg acagcgtgaa aaaaatcaaa 180
 gaacatgtcc ggtctaagac caaggttcct gtgcaggacc aggttctttt gctgggctcc 240
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 caccttaccc tgaaagtggg gaagcccagt gatgaggagc tgcccttgtt tcttgtggag 360
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 gtgaaagcaa tgatcgagac taagacgggt ataatccctg agaccagat tgtgacttgc 480
 aatggaaaga gactggaaga tgggaagatg atggcagatt acggcatcag aaagggcaac 540
 ttactcttcc tggcatstta ttgtattgga gggtgaccac cctgggcatg ggggtgttggc 600
 aggggtcaaa aagcttattt cttttaatct cttactcaac gaacacatct tctgatgatt 660
 tcccaaaatt aatgagaatg agatgagtag agtaagattt ggggtgggatg ggtaggatga 720
 agtatattgc ccaactctat gtttctttga ttctaacaca attaattaag tgacatgatt 780
 ttactaatg tattactgag actagtaaataa aaatttttaa ggcaaaatag agc 833

<210> 476
 <211> 1141
 <212> DNA
 <213> Homo sapiens

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<400> 476

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tgacagcggt taacaaagct tagagaaacc tccaggagac tgctatcatg gcagagaagc 180
ccaagctcca ctacttcaat gcacggggca gaatggagtc cacccggtgg ctcttggtg 240
cagctggagt agagtttgaa gagaaattta taaaatctgc agaagatttg gacaagttaa 300
gaaatgatgg atatttgatg ttccagcaag tgccaatggg tgagattgat gggatgaagc 360
tggtgcagac cagagccatt ctcaactaca ttgccagcaa atacaacctc tatgggaaa 420
acataaagga gagagccctg attgatatgt atatagaagg tatagcagat ttgggtgaaa 480
tgatcctcct tctgcccgtg tgtccacctg aggaaaaaga tgccaagctt gccttgatca 540
aagagaaaaa aaaaaatcgc tacttccctg cctttgaaaa agtcttaaag agccatggac 600
aagactacct tgttggcaac aagctgagcc gggctgacat tcatctggtg gaacttctct 660
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agcctcccat ggatgagaaa tctttagaag aagcaaggaa gattttcagg ttttaataac 840
gcagtcattg aggccaagaa cttgcaatac caatgttcta aagttttgca acaataaagt 900
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gatctgatgt gaattcagat ttccaatctt ctctagcca accattttcc tggaattaaa 1080
aattcagtaa aaaaggaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1140
g                                                    1141

```

<210> 477

<211> 1102

<212> DNA

<213> Homo sapiens

<400> 477

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tttgacagta cgggtccggaa tcccgggtcg acccacgcgt ccgggaattc atgtggaggt 60
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agtccatttg caagtttggc ctggccttag ctgttgacagg aggcgtggtg aactctgcct 180
tatataatgt ggatgctggg cacagagctg tcatctttga ccgattccgt ggagtgcagg 240
acattgtggt aggggaaggg actcattttc tcatcccgtg ggtacagaaa ccaattatct 300
ttgactgccg ttctcgacca cgtaatgtgc cagtcatcac tggtagcaaa gatttacaga 360
atgtcaacat cacactgcgc atcctcttcc ggctgtcgc cagccagctt cctcgcctct 420
tcaccagcat cggagaggac tatgatgagc gtgtgctgcc gtccatcaca actgagatcc 480
tcaagtcagt ggtggctcgc tttgatgctg gagaactaat caccagaga gagctggtct 540
ccaggcaggt gagcgacgac cttacagagc gagccgccac ctttgggctc atcctggatg 600
acgtgtcctt gacacatctg accttcggga aggagtacac agaagcgggt gaagccaaac 660
aggtggctca gcaggaagca gagagggcca gatttgggtt ggaaaaggct gagcaacaga 720
aaaaggcgcc catcatctct gctgagggcg actccaaggc agctgagctg attgccaaat 780
caactggcac tgcaggggat ggctgatcg actgcgcaa gctggaagct gcagaggaca 840
tcgcgtacca gctctcacgc tctcggaaca tcacctacct gccagcgggg cagtccgtgc 900
tcctccagct gccccagtg gggcccaccc tgctgcacc tccgcgggct gactggccac 960
agccccgatg attcttaaca cagccttctt tctgctccca cccagaaat cactgtgaaa 1020

```

```

tttcatgatt ggcttaaagt gaaggaaata aaggtaaaat cacttcagaa aaaaaaaaaa 1080
aaaaaaaaacc ccggggggggg gc 1102

```

<210> 478

<211> 4201

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (4077)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (4161)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (4186)

<223> n equals a,t,g, or c

<400> 478

```

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cctcccgcgtg ctgctgccgc tgccgccctg agtcaactgcc tgcgcagctc cggccgcctg 120
gctccccata ctagtcccg atatttgag ttcttacaac atggcagaca ttgacaacaa 180
agaacagtct gaacttgatc aagatttgga tgatgttgaa gaagtagaag aagaggaaac 240
tggtgaagaa acaaaactca aagcacgtca gctaactgtt cagatgatgc aaaatcctca 300
gattcttgca gcccttcaag aaagacttga tgggtctggta gaaacaccaa caggatacat 360
tgaaagcctg cctagggtag ttaaaagacg agtgaatgct ctcaaaaacc tgcaagttaa 420
atgtgcacag atagaagcca aattctatga ggaagttcay gatcttgaaa ggaagtatgc 480
tgttctctat cagcctctat ttgataagcg atttgaaatt attaatgcaa tttatgaacc 540
tacggaagaa gaatgtgaat ggaaaccaga tgaagaagat gagatttcgg aggaattgaa 600
agaaaaggcc aagattgaag atgagaaaaa ggatgaagaa aaagaagacc ccaaaggaat 660
tcctgaatth tggttaactg tttttaagaa tggtgacttg ctcaagtata tgggttcagga 720
acacgatgaa cctattctga agcacttgaa agatattaaa gtgaagttct cagatgctgg 780
ccagcctatg agttttgtct tagaatttca ctttgaaccc aatgaatatt ttacaaatga 840
agtgtgaca aagacataca ggatgaggtc agaaccagat gattctgatc ctttttcttt 900
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tgtcactttg aaaactatta agaagaagca gaaacacaag ggacgtggga cagttcgtac 1020
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gatgcatttt gaactttaat ataggaaggg gaagaagaag gagatgagga aaatgatcca 1560
gactatgacc caaagaagga tcaaaaccca gcagagtgca agcagcagtg aagcaggatg 1620

```

```

tatgtggcct tgaggataac ctgcactggt ctaccttctg cttccctgga aaggatgaat 1680
ttacatcatt tgacaagcct attttcaagt tatttggtgt ttgtttgctt gtttttgttt 1740
ttgcagctaa aataaaaaatt tcaaatacaa ttttagttct tacaagataa tgtcttaatt 1800
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aaaaaaaaaa taaaattcat tttctttggg tttagagctag agagaaggcc ccaagcttct 2040
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ttactgtgta attaaaatgg gtagtactgt ttacctaaact acctcatgga tgtgttaagg 2160
catattgagt taaatctcat ataatgtttc tcaatcttgt taaaagctca aaattttggg 2220
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c 4201

```

<210> 479

<211> 787

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (780)

<223> n equals a,t,g, or c

<400> 479

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ccgatgata gtgctcaggt taatgccagt gggagggcgg cgcccaatag taacttcctt 120
tggaggttgt agtaccgccc ccagagccaa ttttccactt ccgcktcgg cgctgcggca 180
gtccagatca aaaatggcgg tagttggtgt gtccctcgggt tctcggctgc tgggtcggtc 240
ccgcccacag ctggggcggc ctatgtcgag tggcgcccat ggccaagagg gctcagctcg 300
catgtggaag actctcacct tcttcgtcgc gctccccggg gtggcagtca gcatgctgaa 360
tgtgtacctg aagtcgcacc acggagagca cgagagaccc gagttcatcg cctaccccca 420
tctccgcatac aggaccaagc cgtttccctg gggagatggt aaccatactc tattccataa 480
ccctcatgtg aatccacttc caactggcta cgaagatgaa taaagagaat ctggaccact 540
accggggcac cagggaccac agcactgggt tggaccgtta ctctgcacat ggaccagaaa 600
aagtatatgg gaccttaagc tcaccttctt tacttgatc aaatgatgac tggatgactg 660
gtctcccatc cctttgcttg tggcaggaga tggcttaaat aaataactta aayttaaaaa 720
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaactn 780
ggggccg                                           787
```

<210> 480

<211> 731

<212> DNA

<213> Homo sapiens

<400> 480

```
gaaaacccag gcagccagcg tggaggctgt taagatgctg gatgagatcc tcctgcagct 60
gagcgccctca gtgcccgtgg acgtgatgcc aggcgagttt gatcccacca attacacgct 120
ccccagcag cccctccacc cctgcatggt cccgctggcc actgcctact ccacgctcca 180
gctggtcacc aaccctacc aggccaccat tgatggagtc agatttttgg ggacatcagg 240
acagaacgtg agtgacattt tccgatacag cagcatggag gatcacttgg agatcctgga 300
gtggacccty cgggtccgtc acatcagccc cacagcccct gacactctag gttgttacct 360
cttctacaaa actgaccctg tcatcttccc agagtgcccg catgtctact tttgtggcaa 420
cacccccagc tttggctcca aaatcatccg aggtcctgag gaccagacag tgctgttgggt 480
gactgtccct gacttcagtg ccacgcagac cgcctgcctt gtgaacctgc gcagcctggc 540
ctgccagccc atcagcttct cgggcttcgg ggcagaggac gatgacctgg gaggccttgg 600
ctggggccct gactcaaaaa agtggttttg accagagagg cccagatgga ggctgttcac 660
tccttgcagt gtcggcattg taaataaagc ctgagcactt gctgatgcga aaaaaaaaaa 720
aaaaaaaaaa a                                           731
```

<210> 481

<211> 1119

<212> DNA

<213> Homo sapiens

<400> 481

```
aataacgtgg caaccaccca cgagcccgcg tcggtgcccg ccccgaggg ggacctacta 60
tccggcgccg agccggaggg gggaaacgrc gcccgccgcc cgcccgagc ccgcgagcaa 120
ccccagtccc cccacccgcg gcgtggcggc gccggctccc tagccaccgs ggccccaccc 180
tcttccggcc tcagctgtcc gggctgcttt cgcctccgcc tgtggatgct gcgcctctcc 240
gaacgcaaca tgaaggtgct ccttgccgcc gccctcatcg cggggtccgt cttcttctcg 300
```

```

ctgctgccgg gaccttctgc ggccgatgag aagaagaagg ggcccaaagt caccgtcaag 360
gtgtattttg acctacgaat tggagatgaa gatgtaggcc ggtgatctt tgggtctcttc 420
ggaaaagactg ttccaaaaaac agtggataat tttgtggcct tagctacagg agagaaagga 480
tttggctaca aaaacagcaa attccatcgt gtaatcaagg acttcatgat ccaggggcga 540
gacttcacca ggggagatgg cacaggagga aagagcatct acggtgagcg cttccccgat 600
gagaacttca aactgaagca ctacgggcct ggctgggtga gcatggccaa cgcaggcaaa 660
gacaccaacg gctcccagtt cttcatcacg acagtcaaga cagcctggct agatggcaag 720
catgtggtgt ttggcaaagt tctagagggc atggaggtgg tgcggaagg ggagagcacc 780
aagacagaca gccgggataa acccctgaag gatgtgatca tcgcagactg cggcaagatc 840
gaggtggaga agccctttgc catcgccaag gagtagggca cagggacatc tttctttgag 900
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ataaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagg 1119

```

<210> 482

<211> 2056

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (137)

<223> n equals a,t,g, or c

<400> 482

```

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gcgccccggc ccgcgacccc cgcacccagc tccgcagacc ggcgggcgcg cgcgggctct 120
ggaggccacg ggcatgnatg cttcgggtcc tgggtggggc tgtcctccct gccatgctac 180
tggctgcccc accacccatc aacaagctgg cactgttccc agataagagt gcctgggtgcg 240
aagcaagaac atcacccaga tcgtgggcca cagcggctgt gaggccaaat ccatccagaa 300
cagggcgctg ctaggacagt gcttcagcta cagcgtcccc aacaccttc cacagtccac 360
agagtccctg gttcactgtg actcctgcat gccagcccag tccatgtggg agattgtgac 420
gctggagtgc ccgggccacg aggaggtgcc caggggtggc aagctgggtg agaagatcct 480
gcactgtagc tgccaggcct gcggcaagga gcctagtac gaggggctga gcgtctatgt 540
gcagggcgag gacgggcccg gatcccagcc cggcaccac cctcaacccc atccccaccc 600
ccatcctggc gggcagaccc ctgagcccga ggacccccct ggggcccccc acacagagga 660
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tggtgggtct cactctctgg ggaagtacag ggagaagctg aagccccct ttggcactgg 780
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gtcttcaggc ctcttttttt gggggggggg tggctctctc ctgtctggct tctagagatg 960
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gggcctttct ctggcttcc tggcttgcc ggtgggggaa ggggaggagg ggaagaagga 1380
aagggaagag tcttccaagg ccagaaggag ggggacaacc cccaagacc atccctgaag 1440
acgagcatcc cctcctctc cctgttagaa atgttagtgc cccgcactgt gcccgaagtt 1500

```

408

```

ctaggccccc cagaaagctg tcagagccgg ccgccttctc ccctctccca gggatgctct 1560
ttgtaaatat cggatgggtg tgggagttag gggttacctc cctcgcccca aggttccaga 1620
ggccctaggc gggatgggct cgctgaacct cgaggaaactc caggacgagg aggacatggg 1680
acttgctggg acagtcaggg ttcacttggg ctctctctag ctccccaatt ctgcctgcct 1740
cctccctccc agctgcactt taaccctaga aggtggggac ctggggggag ggacagggca 1800
ggcgggcccc tgaagaaagc ccctcgttgc ccagcactgt ctgcgtctgc tcttctgtgc 1860
ccagggtggc tgccagccca ctgcctcctg cctgggggtg cctggccctc ctggctgttg 1920
cgacgcgggc ttctggagct tgtcaccatt ggacagtctc cctgatggac cctcagtctt 1980
ctcatgaata aattccttca acgcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2040
aaamaggggg gggccc                                     2056

```

<210> 483

<211> 887

<212> DNA

<213> Homo sapiens

<400> 483

```

tgctacaaat aggaaggaat tgtaataatg atatttggcc tctactttgt cttagctggt 60
aaactgtttt tagtatTTTT gttaaataat tgcaaaggga agcattttct acagaggata 120
attaatttca agaaaaatat cttgagtttt aagaaataaa catctccaga aaaggagaaa 180
gtcgatttta taaaatgtcg caactctcca acatttgggg tagtgactcc ttttttggtt 240
ggacatttga aactagcaag cagccattgt ttctaaagaa ttctggcttc acattgactc 300
atgtttcttt cactccattt tgaaatagct aaaaatcatt aaaactgtaa atattttggt 360
gcttggttaa gcatcttctg ggaactttgt atctatggta tataatcata gaattttata 420
ttttcatata aagctaattt ttttctagtt tcaactccgt catagtkttt tttccttttt 480
gtggtggata tgtgaattca actttctgtg tattgaagta gcaaaaacca tctttacatt 540
ccaaaagaat ccaacatgtg ttatttcttt gaggcagtga ttgtgaaagt tgggttttct 600
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tcgtcacatt gaccattttg gaaaaagtgt gctttttttt ttttttttaa tttgttcagg 720
gggaggggtt ttgtaacctg aaatttttcc ctttttcttc tgtttaaact atatcaaact 780
attctattat agtgttattt aatatgtaaa ttgtattgct atacataaaa taaagtatgg 840
tttttgatgt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aataaaa                                     887

```

<210> 484

<211> 1878

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1446)

<223> n equals a,t,g, or c

<400> 484

```

tctcctcgtg gctagttcag gcggaaggag cagtcctctg aagcttgagg agcctctaga 60
actatgagcc cgaggccttc ccctctccca gagcgcagag gctttgaagg ctacctctgg 120
gaagccgctc accgctcgga gctgcgggag ctgaaactgc gccatcgtca ctgtcggcgg 180
ccatgacacc gctcgttcc cgcctgaktc gtctgtgggc catcatgagg aagccacgag 240
cagccgtggg aagtgttcac aggaagcagg cagccagcca ggaagggagg cagaagcatg 300
ctaagaacaa cagtcaggcc aagccttctg cctgtgatgg cctggccagg cagccggaag 360
aggtggtatt gcaggcctct gtctcctcat accatctatt cagagacgta gctgaagtca 420

```

```

cagccttccg agggagcctg ctaagctggt acgaccaaga gaaacgggac ctaccatgga 480
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aaaaaaaaa aaaaaaaaaa 1878

```

<210> 485

<211> 1566

<212> DNA

<213> Homo sapiens

<400> 485

```

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```

```

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aaaatt                                           1566

```

<210> 486

<211> 3046

<212> DNA

<213> Homo sapiens

<400> 486

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cagtttcaag actgtattat tcaaggctta actgaaaccg gtactgattt ggaagcagta 240
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atggataaca gactgatgga actctttcct gccataaagc aaagtgttga acacttcaca 780
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```



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<210> 487

<211> 1904

<212> DNA

<213> Homo sapiens

<400> 487

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412

```

gtgtaggctg cacaagagcc ttgattgaag atatattctt tctgaacagt atttaagggt 1800
tccaataaaa tgtacacccc tcaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1860
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1904

```

<210> 488

<211> 827

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (826)

<223> n equals a,t,g, or c

<400> 488

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cgggcgcgcg ggtgggtggc gtgagccgga ctcaggcgga tcttgacagc cttgtccgcg 180
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 827

```

<210> 489

<211> 1926

<212> DNA

<213> Homo sapiens

<400> 489

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cgtgcacttt gtcggatata aaataaacca cgggcccggc atggsgett as ccttcctttt 420
gcagttgcgt ctgggaagg gcccgggact ccctcgagag aatgtgctag agacagcccc 480
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```

```

agcaaggctg gtctgggtct ctgcccacca ggcgggggagg tgttcaaaga catctccctc 660
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atthttgtgt atagttgttg atgrgttctt tggttttctg tttttttccc cctctcttta 1860
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ggccgc 1926

```

<210> 490

<211> 1461

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1432)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1452)

<223> n equals a,t,g, or c

<400> 490

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gagaagcggg gtagcggag gctgtagtgg ggctgggtgg gcttccaact gcgggacagg 120
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cacaaagtcc attgctaagt tttttgacca cagtgggaca ctggtcatgg atgcatatga 660

```

414

```

gcctgaaata tccaggetcc atgacagtct tgccatagaa agaaaaataa agtagccaat 720
tctaaaagta gccctctttc tcctggatct tgctgaatta gtggcttggg ggggtggggga 780
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ttatccctag gngggatattt a 1461

```

<210> 491

<211> 805

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<400> 491

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tattagagag gtacttttaga ggcttcttga ttggcataaa gttcctaagg ttatagattt 660
tcccccttt tggtgtgata gcaaagtgtt ttaatccacg gttgtgcctt attgttccat 720
taaaattgta tcttcgatcc atcaataaat acttgtggtt gaaacaaaaa aaaaaaaaaa 780
aaaaaaaaa aaaaaaaaaa aaaaaa 805

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<210> 492

<211> 2269

<212> DNA

<213> Homo sapiens

<400> 492

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agaagaatag tctcaccocg cgtgtgccaa ggtggagtat gcctacagcg acaacagcct 60
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<210> 493

<211> 4108

<212> DNA

<213> Homo sapiens

<400> 493

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<210> 494

<211> 2209

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<223> n equals a,t,g, or c

<400> 494

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<210> 495

<211> 1677

<212> DNA

<213> Homo sapiens

<400> 495

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<210> 496

<211> 1702

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1701)

<223> n equals a,t,g, or c

<400> 496

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<211> 2376

<212> DNA

<213> Homo sapiens

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<220>

<221> misc feature

<222> (2354)

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2376

<210> 498

<211> 840

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (840)

<223> n equals a,t,g, or c

<400> 498

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gatcgaccgc gagaagacat gccactgtt gctacgggtc ttcaccacca ataacggccg 180
ccaccaccga atggacgagt tctcccgggg aaatgtaccg tccagcgagt tgcagatcta 240
cacttggtat gatgcaacyt tgaaagaact gacaagctta gtaaaagaag tctaccaga 300
agctagaaag aagggcactc acttcaattt tgcaatcggt tttacagatg ttaaaagacc 360
tggctatcga gttaaggaga ttggcagcac catgtctggc agaaagggga ctgatgattc 420
catgaccctg cagtcgcaga agttccagat aggagattac ttggacatag caattacccc 480
tccaaatcgg gcaccacctc cttcagggcg catgagacca tattaatttc tatttactat 540
ttgttgaatt tatttttccg tcagttatgt aaaataaaca tactcttctt cctcccctga 600
ttattgccat taagccttta aattctaaac aaattataat gcatcatcta tttaggagtt 660
agatttggat gtgctattgt atgattacga atagtctgta tgtttcaagc ctttctgtaa 720
aatatgaaga aaagtgtctt tagcattctg tgtaaaactg tactgtttaa tatatgtgtg 780
taatcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 840
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<210> 499

<211> 461

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (452)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (455)

<223> n equals a,t,g, or c

<400> 499

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cgccatgtct tctcacaaga ctttcaggat taagcgattc ctggccaaga aacaaaagca 120
aaatcgctcc attccccagt ggattcggat gaaaactgga aataaaatca ggtacaactc 180
caaaaggaga cattggagaa gaaccaagct ggggtctataa ggaattgcac atgagatggc 240
acacatatatt atgctgtctg aaggtcacga tcatgttacc atatcaagct gaaaatgtca 300
ccactatctg gagatttcga cgtgttttcc tctctgaatc tgttatgaac acgttggttg 360
gctggattca gtaataaata tgtaaggcct ttcyttttta aaaaaaaaaa aaaaacyyrr 420
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ggggggggccc gggtcccaat cccccctatt tnaanccct t

461

<210> 500

<211> 2782

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2620)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2641)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2643)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2712)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2742)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2759)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2779)

<223> n equals a,t,g, or c

<400> 500

ctcaagggttg cccaaactga tgggtgtcaat gtggacatgc acttgaagca gattgagata 60
aagaagttca agtacggtat tgaagagcat ggtaagggtga aaatgcgagg ggggttgctg 120
cgaacctaca tcatcagtat cctcttcaag tctatctttg aggtggcctt cttgctgatc 180
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atgctggtgg tgtccttggt gtccctggcc ttgaatatca ttgaactctt ctatgttttc 360
ttcaagggcg ttaaggatcg ggtaaggga aagagcgacc cttaccatgc gaccagtggg 420
gcgctgagcc ctgccaaaga ctgtgggtct caaaaatatg cttattttcaa tggctgctcc 480

```

tcaccaaccg ctccccctct gcctatgtct cctcctgggt acaagctggt tactggcgac 540
agaaacaatt cttcttgccg caattacaac aagcaagcaa gtgagcaaaa ctgggctaata 600
tacagtgcag aacaaaatcg aatggggcag gcgggaagca ccatctctaa ctcccatgca 660
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cctattatgg atactggttt tgtaattat gattctttat tttctctcct ttttttagga 1920
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ngncatttgt ttaaagtcag aggattatct aaaagccagt tcccagtc aattggatat 2700
aattggtagt gngaatactt cttcaaggac tattacttgg gnggttgag aatttattnt 2760
ggaagaaggc aaatgcttng gg 2782

```

<210> 501

<211> 1249

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (36)

<223> n equals a,t,g, or c

<400> 501

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tttttagaag aaaagcaaac atgtgagacc aatcattatc aaatactttt attttttggt 300
tgagtattta tctttttatt ttttattttt ttttttgaaa gaatgtcttg gaatgcgcaa 360
gtctcccttt agagccgtct tttgcaggga gcgggaagtg acaagagctc agatctccct 420
cccgatctcc ctccccacct ccgaagtctc ctccgtggac cacagggtga tctttgtgcg 480
aacaacttgc atttcggaag ccactgtccg tctttaaaca gaaagtcgaa ggagccacga 540
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<210> 502

<211> 1358

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1334)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1347)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1349)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1351)

<223> n equals a,t,g, or c

<400> 502

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cccgcaccct agccaggccc caggagacct ccgctgggcc cagacagcag cgttyggttt 60
tatccacttt tctyggataa tcaggagggtg cccagtsgt cacagtgtgg cattccgagt 120
tggggcgggg ggtcgggtca agatagcagc agcagggtgtc agggctcaag acaccacccc 180

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ctccagcttc tggggcccag gagcctctcc ctgctacagg ggggtgggggt cctgctcagc 240
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<210> 503

<211> 501

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (457)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (492)

<223> n equals a,t,g, or c

<400> 503

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gcccacgcgt ccgacggctg cgagaagacg acagaagggg ctttctttct ttccgcgccg 60
atagcgtca cgcaagcatg gttaacgtcc ctaaaaccg ccgacttct tgtaagaagt 120
gtggcaagca ccaaccccat aaagtgcac agtacaagaa gggcaaggat tctctgtacg 180
cccaggga aaagcgttat gacaggaagc agagtggcta tgggtggcaa actaagccga 240
ttttccgga aaaggctaaa actacaaaga agattgtgct aaggcttgag tgcgttgagc 300
ccaactgcag atctaagaga atgctggcta ttaaaagatg caagcatttt gaactgggag 360
gagataagaa gagaaagggc caagtgcac agttctaagt gtcactttt attatgaaga 420
caataaaatc ttgagtttat gttcaaaaa aaaaaanggg gggggcccgg taccawtcg 480
cctatagggg gncgttttaa a 501

```

<210> 504

<211> 2011

<212> DNA

<213> Homo sapiens

<220>
<221> misc feature
<222> (1941)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1961)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1974)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1976)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2002)
<223> n equals a,t,g, or c

<400> 504
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agaatcattg agggccttatt ttgtatacca actgctaaac tagatgcttc atacattggt 180
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tcttgtcacc aagggcattgc acttgtactc tgccatgtgg scctttttta cctcctgtgg 360
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tcaactttcc tgctgaaaat gcccatthaa ttaaagaagg ttggatagag ctctctatat 600
gcatttttga caggcagggg tttcagggtca taaacattct gatgagttaa tataaaataa 660
gagaaaactgt aaatttccac tactaaaaat cacaaaaata acagaaacaa aagaagagat 720
aagaatttgg ggaattgtgc tgaacaattt agtggttaaa aaaaacaact gtgcatgttt 780
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tcctgtttta catttactca tttaaagtcc ataagaaaca ttaaattctca tctgccttct 1440


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gaagaagata caaccatgct ctctttttaca aagtaggaaa ctgggtcaca gaaagggtgaa 1500
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agggatctta tcaacttcaact tccacactaa aatgtttttc ctgggggaac cacacttcc 1920
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<210> 505

<211> 1989

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1917)

<223> n equals a,t,g, or c

<400> 505

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428

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ctaagtgact aaagtaagtt aaacttgtgt agactaagca tgtaattttt aagttttatt 1800
ttaatgaatt aaaatatattg ttaaccaact ttaaagtcag tcctgtgtat acctagatat 1860
tagtcagttg gtgccagata gaagacaggt tgtgttttta tcctgtggct tgtgtantgt 1920
cctgggattc tctgcccccy ctgagtarag tgttgtgggr taaaggaatc tytcaggggc 1980
agggggcctt                                     1989

```

<210> 506

<211> 1085

<212> DNA

<213> Homo sapiens

<400> 506

```

gggcggtggcg ggcgtgtgcg cgtgcacaaa agagagctga ggggcggggg cgctgcggca 60
cagctggttt gagcaactga actggaaaca agatgcagga ccccaacgca gacactgaat 120
ggaatgacat cttacgcaaa aagggtatct taccgcccaa ggaaagtctg aaagaattgg 180
aagaggaggc agaagaggag cagcgcatcc tccagcagtc agtggtgaaa acatatgaag 240
atatgacttt ggaagagctg gaggatcatg aagacgagtt taatgaggag gatgaacgtg 300
ctattgaaat gtacagacgg cggagactgg ctgagtggaa agcaactaaa ctgaagaata 360
aattyggaga agttttggag atctcagga aggattatgt tcaagaagtt accaaagctg 420
gcgagggtt gtgggtcatc ttgcacctt acaaaacaagg aattcccctc tgtgccctga 480
taaatacgca cctcagtga cttgccagga agtttcctga tgtcaaattt atcaaagcca 540
tttcaacaac ctgcataccc aattatcctg ataggaatct gcccaogata tttgtttacc 600
tggaaggaga tatcaaggct cagttttattg gtcctctggt gtttggcggc atgaacctga 660
caagagatga gttggaatgg aaactgtctg aatctggagc aattatgaca gacctggagg 720
aaaaccctaa gaagccgatt gaagacgtgt tgctgtcctc agtgcggcgc tctgtcctca 780
tgaagaggga cagcgattcc gagggtgact gaggctacag cttctatcac atgccgaact 840
ttcttgtgac aaattgtctg gattttttaa aaaaggaaaa agcaagaatg aatccttgtg 900
gttttttagtt ttgtataaat tatgtttcaa atctttacat tttggaaata atcattgctg 960
gagattctgt taaatatattt ggaactcttt tttttttaa ttatagtatt tcctctaaaa 1020
aaaattaaaa ccagccattt gtatggcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1080
aaaaa                                     1085

```

<210> 507

<211> 1485

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (570)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1475)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1476)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1485)

<223> n equals a,t,g, or c

<400> 507

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cctggcctcg cgggtgccatg ctgccccggc ggccggcgctg aaggatggcg acgcccgtgc 180
ctccgcccctc cccgcggcac ctgcccgtgc tgcggctgct gctctccggc ctgctctctcg 240
gcgcccgcctt gcgtggagcc gccgcccggc acccggtatg agccgcctgt cccgggagcc 300
tggaactgtgc cctgaagagg cgggcaaggt gtctccttgg tgcacatgcc tgtggggcctt 360
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caggcggggg ccggcccccag cccagactgg aagatgagat tgacttcttg gccaggagc 480
ttgcccggaa ggagtctgga cactcaactc cggccctacc caaggaccga cagcggtcc 540
cggagcctgc caccctgggc ttctcggcan gggggcaggg gctggakctg ggcctcccct 600
ccactccagg aacccccacg cccacgcccc acacctccct gggctcccct gtgtcatccg 660
acccggtgca catgtcgccc ctggagcccc ggggagggca aggcgacggc ctgccccttg 720
tgctgacctt ggcgttctgt gtggccgggtg cagccgccct ctccgtagcc tccctctgct 780
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cggagatgta ccactaccag caccaacggc aacagatgct gtgcctggag cggcataaag 960
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accgtagagc gcaggaacgg gtgggtaatt ctagagacaa aagccaatta agtccattt 1440
cagacctgcy gaaaaaaaaa aaaaaaaaaa aaacnnnggg ggggn 1485
```

<210> 508

<211> 1930

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (30)

<223> n equals a,t,g, or c

<400> 508

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ttatttgtaa aaagatgagg acacacatta artgawgtca gcatttttagt aaacttttag 120
acaaaatttg ttagggtcat tcatgaaaaac tttaatacta aaagcacttt ccattatata 180
ctttttaaag gtctagataa ttttgaaacca atttattatt gtgtactgag gagaaataat 240
gtatagtaga ggacagcctt gttttgtaaa gctcagttcc actagtccat ggttttgtgc 300
aacttctgag cctcagtttt ctcccttgca aattaataat tacatacctt tatagatttt 360
gaaattaatt taaatattag tatttggtac atgaaggctt aatgttaagt ttcccttaat 420
```

```

gatccacaat aatccctttg atcacgttaa tctaaatcta gatgtctttg tctaattttt 480
tttgaatagc agttataaat gtaaaggact caaagtttaa gtaaaaagtg atactccacc 540
ttgtgtttca aagaatttag ttccacctct tcataccagt ttaacactta atatatattca 600
ttggatttta gacagggcaa aaggaagaac aggggcctct ggaggccctt ggttatttta 660
atcttggatt atttgtgata gtaatcacia atttttggct aatttttaac ctgaggtttt 720
gttttttttt taaaggaaat gcagcctagt cttgagaaca taattttata taatcaatta 780
ctaaatgtta aactattacc acacagccca taaaacagca tttgcgttta ttgagagaga 840
ggatgtgcca tcatgattaa tgaaaactat cttttgagtt tgaaaagaaa ttaatttgca 900
gtgtttggat tgtatatatg gtgctaaaaa taaattaatt tactttataa accttatctg 960
tacattatac gatgtgatga aatttgcttt ttatccaaat attttgcata ttgtaaatat 1020
ggctaattat aggaatgcct ataatacatc ttagattcct tataatctaat aagagttcaa 1080
agagttatga gttgaagtct tgaatgcagg aaactatctg atagtgttct aaaatttggg 1140
tacttgggtt tggataccct tagtgggatg atgtaaatag aggctagcta cctaggcttg 1200
tctatagcaa ccataatgtt gatgtaagta atgcggttac tgaatcataa gaaaatgcca 1260
tctcttttta gttgaaggaa aactctggaa gtaggtgcca ttggtcattc tgcagtgcac 1320
tgcaaccatt gtttcccta gtgccctctt ttccctaggg cattgctctc ctattccac 1380
gccttaacac agctctatac ctagaagcag ccagcccagg catgcagtca catttaatca 1440
catccccctt cttagagtgc tcaaaatgat gtagtccctc aacttggcta aagaatctca 1500
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gagtaccoga cccgttgcca tgattaagag agaatgcttt ctattggagt ttcaggaaat 1680
ataatttgag aatactttaa aggaagtgg aagtataagt gaatgatatt tttcttttac 1740
atgtaaacaa tgaagttatt tcaaagttaa gttttaaaca aaatacatga agtagtgtct 1800
gccatacatg ttaatatctt acattcttgc ttccttaaat taatatgttt gtgtgtatat 1860
atgtgcctca cacctgaatt gaaaattaaa gactgggtta aaagtgaaaa aaaaaaaaaa 1920
aaaaaaaaat                                     1930

```

<210> 509

<211> 1134

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (895)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1041)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1064)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1090)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1106)

<223> n equals a,t,g, or c

<400> 509

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gagccacgcc cgggctgttg gaataagatg gcggggaaga agaattgttct gtcgtctctc 60
gcagtttacg cggaagattc agagcccgag tctgatggcg aggctggaat cgaggcggtg 120
ggcagcgcgg ctgaggagaa aggcggattg gtatctgatg cctatgggga ggatgacttt 180
tctcgtctag ggggtgatga agatggttat gaagaagaag aagatgagaa cagtagacag 240
tcggaagatg acgattcaga gactgaaaaa cctgaggctg atgacccaaa ggataatata 300
gaagcagaaa agcgagaccc ccaggaactc gtggcctcct tttctgaaag agttcggaac 360
atgtcgcttg atgaaatcaa gatcccgcca gaacccctg gcagatgttc aaatcacttg 420
caagacaaga tccagaagct ttatgaacga aagataaagg agggaatgga tatgaactac 480
attatccaaa ggaagaaaga atttcggaac cctagcatct acgagaagct gatccagttc 540
tgtgccattg acgagcttg caccaactac ccaaaggata tgtttgatcc ccatggctgg 600
tctgaggact cctactatga ggcattagcc aaggccaga aaattgagat ggacaaattg 660
gaaaaggcca aaaaggagcg aacaaaaatt gagtttgtga cgggcaccaa aaaaggcacc 720
acgaccaacg ccacgtccac caccactacc actgccagca cagctgttgc agatgctcag 780
aagagaaaga gcaagtggga ttcggtatc ccagtgacaa cgattagccc agcccaccat 840
cctcaccacc acagccaccc tgccagctgt tgtcacggtc accaccagcg ccagncktc 900
aaggaccacc gtcactctctg ctgtggggca ccattgtgaa gaaggccaag cagtgcctg 960
agggggccacc ttagggaytt gaaaagggac cgttgcagcc ccarttgacc actggccagt 1020
gggagggcgg ccatttttgt nttatttttc agggatttg ggancattt tccccagggt 1080
gcccaacttn aggagggagt ttttntttt tgggcttttc caggttgga aggg 1134

```

<210> 510

<211> 1382

<212> DNA

<213> Homo sapiens

<400> 510

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cctcttgggg agtgacagtg cccactctg ttaagtccca tgctgcccc caactcagct 120
tcagccacaa tgatgtagcc tcttttcctt tccatccaca gggcacctgg cctgggtgga 180
gccactcct cagcaccac ctcacttctt gcagtattct gcagaccca gccctgtgcc 240
tgtgtcctg gacagctgga gataaggagt gggccctgga agatgctcat tcaggccctg 300
ctcaagattc cagtcctgat tgctggactc gctgaagara gactacgcag gaaagcccca 360
gccacccatc aaatcagaga gaaggaatcc accttcttac gctatggcag gtaagaaagt 420
actcattgtc tatgcacacc aggaacccaa gtctttcaac ggatccttga agaattgtggc 480
tgtagatgaa ctgagcaggc agggctgcac cgtcacagt tctgatttgt atgccatgaa 540
ctttgagccg agggccacag acaaagatat cactggtact ctttctaata ctgagggttt 600
caattatgga gtggaacccc acgaagccta caagcaaagg tctctggcta gcgacatcac 660
tgatgagcag aaaaagggtc gggaggctga cctagtgata tttcagttcc cgctgtactg 720
gttcagcgtg ccggccatcc tgaaggctg gatggatagg gtgctgtgcc agggctttgc 780
ctttgacatc ccaggattct acgattccgg tttgtccag ggtaaactag cgctcctttc 840
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atacttcctg ttggccactcc agcatggcac attacacttc tgtggattta aagtccttgc 960
ccctcagatc agctttgtct ctgaaattgc atccgaagaa gaaagaaagg ggatgggtggc 1020
tgctgtgtcc cagaggctgc agaccatctg gaaggaagag cccatcccc gcacagccca 1080

```

```

ctggcacttc gggcaataac tctgtggcac gtgggcatca cgtaagcagc acactaggag 1140
gccaggcgcc aggcaaagag aagatgggtgc tgtcatgaaa taaaattaca acatagctac 1200
ctgggggatac ttttttcttt ctgttttttg tttgttttta attttagctt taaggagcac 1260
atggccagta ctgtttcagg ggaatattgg gtggcgctgg ggtttgggct tctattgac 1320
ccatcaccca aacagtgagc atagtcccca atagatagtt tttcaacact tcctttcctc 1380
cc 1382

```

<210> 511

<211> 1741

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1696)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1710)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1715)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1717)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1720)

<223> n equals a,t,g, or c

<400> 511

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aactatccaa gccacctatt ttatttggtc tttcatctgt gactgcttgc tgactttatc 60
ataattttct tcaaacaaaa aaatgtatag aaaaatcatg tctgtgastt cattttttaa 120
tgtacttgct cagctcaact gcatttcagt tgtattatag tccagttctt atcaacatta 180
aaacctatag caatcatttc aaatctattc tgcaaattgt ataagaataa agttagaatt 240
aacaatttta ttttgtacaa cagtgggaatt ttctgtcatg gataatgtgc ttgagtcctt 300
ataatctata gacatgtgat agcaaaaagaa acaaacaaaa gccaggaaaa cactcatttt 360
cgccttgaat atgtaaatgg gattaatttt gtccctgtgcc ttatgtggaa aggaacttct 420
ttggttttcc ttttttggtc tgggtggaagc atgtgcagga gacatatcat ccaaacataa 480
accattaaaa tgtttgtggg ttgcttgggt gtaattttca aagtagttaa ttgaggacaa 540
agggtaatgc agaagtgtata gctttgggtt gctgagtcct gttttaagtg gccttgatat 600
ttaaactat tcctgccacc atttcttctc cttggccact tcttccttgc gtctccctgc 660
atgctgcttt atttgcttct ccctcccaa ccacctcatg gtatatttta gagtgaaagg 720
gacaaactag taggtttgtc aagtttaata taaagcactg atgtaacttg ctaggtaaac 780

```

```

ggaaagataa gttctaactg cctactatcc matgtccagt taattggtgt cttccccct 840
catttgctot cttccctaaa atgtgtccca gatgccttca tttgctgtt tacttctatg 900
ttctgctttt cctcctctct tkgttccctt cckgtctatc cattgagttt atgaaatgga 960
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ccttttttca ctgcattttt tctagttttg cttcattgct tatcattagg atagggttaag 1440
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gcatgattca tttctagcag aggctgagtt taggacagca gcttccattg agaagtcttt 1560
ctgtgtogtg aatgaacttt taatgacctt ttggctcaca taagcaaaca acatagggac 1620
gtatctgcta tgaaaatcca caaatttttc agatagtgcc ctaaaaacaa ttttatatgc 1680
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c 1741

```

<210> 512

<211> 1530

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1342)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1444)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1488)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1508)

<223> n equals a,t,g, or c

<400> 512

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gaagcggcgt cggcggctgg agcagaggca gcagccggac gagcagcggg ggcggtcggg 60
agcgatggtg aagatggcgg cggcggggcg cggaggcggc ggtggccgct actacggcgg 120
cggcagtgag ggcggccggg cccctaagcg gctcaagact gacaacgccg gcgaccagca 180
cggaggcggc ggcggtgggc gtggaggagc cggggcggcg ggcggcggcg gcggtgggga 240
gaactacgat gaccgcaca aaaccctgc cttcccagtt gtccacatca ggggcctgat 300
tgacgggtgt gtggaagcag acctgttgga ggccttgag gagtttgga ccatcagcta 360
tgtggtggta atgcctaaaa agagacaagc actggtggag tttgaagatg tgttgggggc 420

```

```

ttgcaacgca gtgaactacg cagccgacaa ccaaataatac attgctgggc acccagcttt 480
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cgtgaacagt gtgcttctct ttaccatcct gaaccccat tattcgatca ccacggatgt 600
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```

<210> 513

<211> 2999

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (243)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2606)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2996)

<223> n equals a,t,g, or c

<400> 513

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ctggcaatct tttccgtttt tttgttttct gttttccatt cgcattgccc ttagcgtacc 180
tggggctccg gctcctttac aaatgaaacc caaagtgtc cgaagcacag ccagcgaaag 240
ganaaactcg gaaacggaca agatggctgc cactcttcg cgctcttag tcccaccac 300
tcagggcgga ggtctgcgtc atgtgacctt ccccttcttg gctccgctcc taccgcagt 360
cttgacggga ggcggacggg gaacgaggcc gtcggcattt tgtgtctgct tcctgtggga 420
cgtggtggta gccgttgggt tgggaaagtg agggattttt ggcctcgttt ctctgtctc 480
ttttctcctc ccttttactt tgccggtaga acacagttat gggtcgcaag aagaagaagc 540
agctgaagcc gtggtgctgg tattgtaata gagattttga tgatgagaag atccttattc 600

```



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agcaccaaaa agcaaagcat tttaaatgcc atatatgtca caagaaattg tatacaggac 660
ctggcttagc tattcattgc atgcaggtag ataaagaaac aatagatgcc gtaccaaatg 720
caatacctgg aagaacagac atagagttgg aaatatatgg tatggaaggt attccagaaa 780
aagacatgga tgaaagacga cgacttcttg aacagaaaac acaagaaagt caaaaaaaga 840
agcaacaaga tgattctgat gaatatgatg atgacgactc tgcagcctca acttcatttc 900
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caccagtacc aggagcacca ggaatgcctc caggcatacc tccattaatg ccagggtgtc 1020
ctcctctgat gccaggaatg ccaccagtta tgccaggcat gccacctgga ttgcatcatc 1080
agagaaaata caccagtca ttttgcggtg aaaacataat gatgccaatg ggtggaatga 1140
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ctgttccacg tcttggaaat cctccaatga ctcaagcaca ggctgtttca gcgccaggta 1260
ttcttaatag accacctgca ccaacagcaa ctgtacctgc cccacagcct ccagttacta 1320
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<210> 514

<211> 2048

<212> DNA

<213> Homo sapiens

<400> 514

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<210> 515

<211> 3300

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (126)

<223> n equals a,t,g, or c

<400> 515

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<210> 516

<211> 3425

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (402)

<223> n equals a,t,g, or c

<400> 516

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<211> 1358

<212> DNA

<213> Homo sapiens

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<220>

<221> misc feature

<222> (1356)

<223> n equals a,t,g, or c

<400> 517

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440

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<210> 518

<211> 1368

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<220>

<221> misc feature

<222> (1311)

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<220>

<221> misc feature

<222> (1333)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1347)

<223> n equals a,t,g, or c

<400> 518

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attgccaaag cacagaagag gagaaaattc tctatctaac tccagagcaa gaaaaggata 1200
aatctcattt cacagacaaa gaganccgga caggaaccat gascttatcg agagcatgsc 1260
cctktttgga awggkttgst aacaactwta aaaaattggg acttccttgg naaattggcc 1320
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<210> 519

<211> 933

<212> DNA

<213> Homo sapiens

<400> 519

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ccacgcgtcc gcggaacgcgt gggcggacgc gtgggtggca ggatcagatt ttattaagac 60
ctctactgga aaagaaacag taaatgccac cttcccggta gctatagtaa tgctgcgggc 120
cattagagat ttcttctgga aaactggaaa caagataggg tttaaaccag caggaggcat 180
ccgcagtgca aaggattccc ttgcttggct ctctcttgta aaggaggagc ttggagatga 240
gtggctgaag ccagaactct ttcgaatagg tgccagtact ctgctctcgg acattgagag 300
gcagatttac catcatgtga ctggaagata tgcagcttat catgatcttc caatgtctta 360
aatcagtcac cagttccaga aaagtctctt acgacaatgt ttaaaaatta ttttctacg 420
taattgctaa aattatttaa ttaaaaaatt gggcagtagg taactggcat tcctctcttt 480
aaaatttcta ccgaacttaa tggaatggaa aaagcaaact catccacatg tggactcat 540
ttcaggcaca tctgaaatga tcttaattac tagaagatct gcactattaa ctttgtgaag 600
agtttctcct aaaaacttta agtaaaatgt taatggtagc tttgataaca tcaaattcta 660
agggagaaaa aaacaatatt aaaccgcca agcagtggtc cctagcagag gaaaatgcaa 720
catctcgcaa gcgctgctgt aacgacttca ggagtcactg attcagcact aatttcctgc 780
tgtgaaaact catctttcat ttttgccgtg gataggcgct tttattaatt gttgtcctaa 840
tgaaatttct gacattgtca tatacaacga tgaatatcat taaaattttt aaaaataaaa 900
aaaaaaaaaa aaaaactcgc agggggggcc cgc 933

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<210> 520

<211> 1430

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (104)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (105)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1428)
<223> n equals a,t,g, or c

<400> 520
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tcacgcagga tagtaattat ttgttaaccg ggggacagga taaactgtta cgcataatg 180
acttgaacaa acctgaagca gaacctaaag aaattagtgg tcatacttct ggtataaaaa 240
aagctctgtg gtgcagtgag gataaacaga ttctttctgc tgatgacaaa actgttcgac 300
tttgggatca tgctactatg acagaagtga aatctctaaa ttttaatatg tctgttagta 360
gtatggaata tattcctgag ggagagattt tgggtataaac ttatggacga tctattgctt 420
ttcatagtgc agtaagtttg gaccaatta aatcctttga agtcctgca accatcaatt 480
ctgcatctct tcacctcgtg aaagaatttc ttgttgacgg cggatgaagat tttaaacttt 540
ataagtatga ttataatagt ggagaagaat tagaatccta caagggacac tttggtccta 600
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaanaa 1430

<210> 521
<211> 1169
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1159)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1166)
<223> n equals a,t,g, or c

<400> 521

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gccccacgcgt ccccccacgm gyccgcgtgg agttgtgaac gccgcggact ccggagccgc 60
acaaaccagg gctcgccatg aagccaggat tcagtccccg tgggggtggc tttggcggcc 120
gagggggctt tggtagaccgt ggtggtcgtg gaggccgagg gggctttggc gggggccgag 180
gtcgaggcgg aggcctttaga ggtcgtggac gaggaggagg tggaggcggc ggcggcgggtg 240
gaggaggagg aagaggtggt ggaggcttcc attctgggtg caaccggggt cgtggtcggg 300
gaggaaaaag aggaaaccag tcggggaaga atgtgatggt ggagccgcat cggcatgagg 360
gtgtcttcat ttgtcgagga aaggaagatg cactggtcac caagaacctg gtccctgggg 420
aatcagttta tggagagaag agagtctcga ttctggaagg agatgacaaa attgagtacc 480
gagcctggaa ccccttccgc tccaagctag cagcagcaat cctgggtggt gtggaccaga 540
tccacatcaa accggggggt aaggttctct acctcggggc tgcctcgggc accacggtct 600
cccatgtctc tgacatcggt ggtccggatg gtctagtcta tgcagtcgag ttctcccacc 660
gctctggccg tgacctcatt aacttggcca agaagaggac caacatcatt cctgtgatcg 720
aggatgctcg acacccacac aaataccgca tgctcatcgc aatggtggat gtgatctttg 780
ctgatgtggc ccagccagac cagaccgga ttgtggccct gaatgcccac acctcctgc 840
gtaatggagg acactttgtg atttccatta aggccaaactg cattgactcc acagcctcag 900
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agcagttgac ccttgagcca tatgaaagag accatgccgt ggtcgtggga gtgtacaggc 1020
caccccccaa ggtgaagaac tgaagttcag cgctgtcagg attgagagag atgtgtgttg 1080
atactgttgc acgtgtgttt ttctattaaa agactcatcc gtcaaaaaaa aaaaaaaaaa 1140
argggggggc gctaggggnt ccaagntta 1169
```

<210> 522

<211> 2162

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (169)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2133)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2136)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2139)

<223> n equals a,t,g, or c

<400> 522

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gccgggcgcg gagaagtcgg ggcgggcggc agagaggccg ggacgcggac cgggcccggg 60
cgcccacagc cgcccagcgg cgcccagaga gcgcgcgccc cgcagccccg cgcctagccc 120
```

```

gccgggcatg gggcgcgcg gaggcgcgtga agccccggcc tggccccgnc gcacccggcc 180
ggaggcgagg ggcagagcgc gcgcccagtt gcccgggcac caaatcgag cgcggcgtgc 240
gggagggccc agagcaggac tggaaatgtc ctggccgcgc cgccctcctgc tcagatacct 300
gttccccggc ctcctgcttc acgggctggg agagggttct gccctccttc atccagacag 360
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ccatcacatg ctcaaacatc tccacaatgg tgcaaggatc acagtgcaga tgccacctac 480
aatcgagggc cactgggtct ccacaggctg tgaagtaagg tcaggcccag agttcatcac 540
aaggtcctac agattctacc acaataacac cttcaaggcc taccaatttt attatggcag 600
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ggcctcctgg atcatccgag ggggcacgga agccgactac cagctgcaca acgtccaggt 720
gatctgccac acagaggcgg tggccgagaa gctcggccag caggtgaacc gcacatgcc 780
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```

<210> 523

<211> 799

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (443)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (758)

<223> n equals a,t,g, or c

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<400> 523
tctctctccc tctcttcctt cccctgccc caaaactaaa gtaaaataac gttaactgcc 60
cgttttttctg taaccagcag accttatcta tactcccaat tccaattcct tgtaaacata 120
ctttgtaaag tcctgtaaga tcctgtctcc tttgccatga cgctgcaagg tcataaagta 180
gataaaacct aagttgcaat tccggttttc ctcaagatct aagacatgtt acaaattggt 240
aattgccttt gtttctcgct ttggtaacat cttcccgct caggtatttc ccgccttgaa 300
gagtttaaaa ggcaatccta taatctaact ctggctaccc attctggacc cctccatgc 360
tttggaagct ttgtactttc actctgctca ataaagcctr cagctttttc tcaactctcag 420
tccatgtctc tttcactcac tngggtcagc ttccacacca tttcttttgt gtggcttggc 480
aagaacctca ggtgttacat cttggcgagc cagacaggag actccagaaa aggatcaaag 540
ccatcaagct acaaatratc ttacaaatgg aacctcaaat gagctcagct cacggcttct 600
accgaggacc cctggwtcaa cccgctggtc cctcaattac cctagaaaat tccccctctg 660
aggacaccaa actgcagggc cccttyttca cccctaacca gcaggaagta gccagaacgg 720
actgccacam ggttcccaac agcarttkgg ggtgtccngt tttagaggca ggatttagag 780
gaggtgcccc attggggtt 799

```

<210> 524

<211> 1722

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (36)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (40)

<223> n equals a,t,g, or c

<400> 524

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tctggggcgg ctgagttctg cggtgccagg gagtggagca gagctcagcc ccgtcccaaa 120
yacagatggg accatgaact ccggacacag cttcagccag accccctcgg cctccttcca 180
tggcgcggga ggtggtggg gccggcccag gagcttcccc agggctccca ccgtccatgg 240
cgggtgcggg ggagcccga tctccctgtc cttaaccacg cggagctgcc caccctctgg 300
agggctcttg ggttctggaa gaagcagccc cctactaggc ggaaatggga aggccaccat 360
gcagaatctc aacgaccgcc tggcctccta cctggagaag gttcgcgccc tggaggaggc 420
caacatgaag ctggaagcc gcacctctgaa atggcaccag cagagagatc ctggcagtaa 480
gaaagattat tcccagtatg aggaaaacat cacacacctg caggagcaga tagtgatgg 540
taatgatacc aatgctcaga ttattcttct cattgacaat gccaggatgg cagtggatga 600
yttcaacctc aagtwtgaaa atgaacactc ctttaaaaaa gacttggaat ttgaagtcga 660
gggcctccga aggacttag acaacctgac ctttgtcaca acagacctag aacaggagggt 720
ggaaggaatg aggaaagagc tcattctcat gaagaagcac catgagcagg aaatgggaa 780
gcatcatgtg ccaagtgact tcaatgtcaa tgtgaagggt gatacaggtc ccagggaaga 840

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446

```

tctgattaag gtcctggagg atatgagaca agaatatgag cttataataa agaagaagca 900
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tccagccact gtgcagagca gacaagggtga catccacgaa ctgaagcgca cattccaggc 1020
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cgagacccag tctcgktact cctgcaagct ccaggacatg caagagatca tctcccacta 1140
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ctttcctact gcagccttca gattctcatc attttgcac tattttgtag ccaataaaac 1680
tccgcactag caaaaaaaaaa aaaaaaaaaa aaaaagttcg ac 1722

```

<210> 525

<211> 562

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (515)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (526)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (557)

<223> n equals a,t,g, or c

<400> 525

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tcccggggccc gagggcatca gacggcggct gattagctcc ggtttgcac acccggaccg 60
ggggattagc tccggtttgc atcacccgga ccgggggatt agctccgggt tgcacacccc 120
ggaccggggg ccgggcgcgc acgagactcg cagcgggaagt ggaggcggct ccgcgcgcgt 180
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cacgcggaac gacggggcga gatgcgagcc acccctctgg ctgctcctgc gggttccctg 360
tccaggaaga agcggttgga gttggatgac aacttagata ccgagcgtcc cgtccagaaa 420
cgagctcgaa gtggggccca gccagactg cccccctgcc tggtgcccc gagccacct 480
actgctccag atcgtgcaac tgctgtggsc actgntcccc gtyttnggsc ctatgtccty 540
ctkgaagccc gaagaanggc gg 562

```

<210> 526

<211> 2023

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<400> 526

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aaagtataa cncaactaat ggttgtggac ttgaatctyc aggaaatact gttacacctg 60
taaagtgttaa tgaagttaaa ccataaaaca aaggtgaaga acaaattggt tttgagctag 120
tggagaaatt atttcaaggt cagctggtat taaggacgcg ttgcttgga tgtgaaagtt 180
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ccaaagtaga ggagagttct gaaatttctc cagagccaaa aacagaaatg aagaccctga 300
gatgggcaat ttcacaattt gcttcagtag aaaggattgt aggagaagat aaatatttct 360
gtgaaaactg ccatcattat actgaagctg aacgaagtct tttgtttgac aaaatgcctg 420
aagttataac tattcatttg aagtgccttg ctgctagtgg tttggagttt gattgttatg 480
gtggtggact ttccaagatc aacactcctt tattgacacc tcttaaattg tctactagaag 540
aatggagcac aaagccaact aacgacagct atggattatt tgcggttgtg atgcatagtg 600
gcattacaat tagtagtggg cattacactg cttctgttaa agtcactgac cttaacagtt 660
tagaactaga taaaggaaat tttgtggttg accaaatgtg tgaaataggt aagccagaac 720
cattgaatga ggaggaagca aggggtgtgg ttgagaatta taatgatgaa gaagtgtcaa 780
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atgtgtgtat tcacaatggg gtatgtacat tttgtgcctt gattcactta gaagtgtctc 1740
agaaaacctg gacagttcgc ttctacacaa gaattttata tgtattttatg aagatgattc 1800
tgtaccctag tatatctttt tgggcatgga ctaatttgta tctgtttaac tcatattctg 1860
cacgatctgt atatagtaca tcaaaacttag aggtgtgacc ttaaatttaa ctttttttaa 1920
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```

<210> 527

<211> 2847

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (286)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (290)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2842)

<223> n equals a,t,g, or c

<400> 527

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ggcacagggtt attctgtgtc tttcatagta gaaaccttaa tgatcgggtct gttgtagtga 60
actcttttaa aaggcgctat agaaaaccaa tttctgagta aaccagcaga cagcatgact 120
tgtaaatggt cttttaatta attaaaaaga aattagtcag ctacaagcat gaacatgtgg 180
aacgcttacc tttgtactag gcgtttttgt ttttgtttta atggcttttg gaatattata 240
gtattaacat ctggaaaact aggtaaatth atcttagaat taagtntttn gctccttttt 300
tgcagaaaaa gaacagcaag aagcgattga acacattgat gaagtacaaa atgaaataga 360
cagacttaat gaacaagcca gtgaggagat tttgaaagta gaacagaaat ataacaaact 420
ccgccaaacca ttttttcaga agaggtcaga attgatcgcc aaaatcccaa atttttgggt 480
aacaacattt gtcaaccatc cacaagtgtc tgcactgctt ggggaggaag atgaagaggc 540
actgcattat ttgaccagag ttgaagtgc acgaatttgaa gatattaaat caggttacag 600
aatagatttt tattttgatg aaaatcctta ctttgaaaat aaagtctctt ccaaagaatt 660
tcatctgaat gagagtgggt atccatcttc gaagtccacc gaaatcaaat ggaaatctgg 720
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```

<210> 528

<211> 816

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (22)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (94)

<223> n equals a,t,g, or c

<400> 528

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aaaacgantg tgtaattaac anaggctgtg cgcataaacg ttgccgttat ggttcgcgaa 60
ttttccccgg cgcccaatgc gagggagacg aaantatgta aatgagtggg ttctggctga 120
gctatcctat tggtatcgg gacaaaattt gcttgagcca atccaaagtg ctccgtggac 180
aatcgccgtt ctgtctataa aaaggtgaag cagcggcggt ttccgcgact ttcccgatcg 240
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gaggcaaggc ccgcgccaaag gccaaagtcgc gctcgtcccg cgctggcett cagttcccgg 360
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ccgtctacat ggctgcggtc ctcgagtatc tgaccgccga gatcctggag ctggcgggca 480
acgcggctcg ggacaacaag aagacgcgca tcatccctcg tcacctccag ctggccatcc 540
gcaacgacga ggaactgaac aagctgctgg gcaaagtcac catcgcccag ggcggcgtct 600
tgccatacat ccaggccgta ctgctcccta agaagacgga gagtcaccac aaggcaaagg 660
gcaagtgagg ctgacgtccg cccaagtggc ccagcccggc ccgcgtctcg aaggggcacc 720
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gctggcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 816

```

<210> 529

<211> 885

<212> DNA

<213> Homo sapiens

450

<400> 529

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atcgtgcgcc gagggccgcg aggggtcgcc gccagatcc caccagccag caagctaaag 180
catggcggcc atccccctcca gcggctcgct cgtggccacc cagactact accggcgccg 240
cctgggttcc acttccagca acagctcctg cagcagtacc gagtgccccg gggaagccat 300
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cgggaagtcc accctcccgt tcatggccac ggtgttgag tccgcagagc actcggaacc 420
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gcccggcggt cagtccagca cagccagcgc tgggcccccg tcctgacctg agcgggttacc 540
accagcccca ggcttcgga ggcgctagtc caccagagcc cctyccccgc cctctcccca 600
ctccgcatcc ctgcgcccc tccccacctc ccaccccca ccctgtaaac taggcggctg 660
cagcaagcag accttcgcac caacacagca gacacaaaa accagtgaga gccccgctct 720
ctaccgcccg gcccagcac tcgctagctt tcctgacacc tggaactgtg cacctggcac 780
caagcggaaa ataaactcca agcagccagt agccccgatg gtgtgtgcct gagctgtgtg 840
gcccgagggt ccaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 885
```

<210> 530

<211> 742

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (693)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (695)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (715)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (730)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (741)

<223> n equals a,t,g, or c

<400> 530

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ggtacctgac agtaccggtc ggaattcccg ggtcgaccca cgcgtcgct gctgctctta 60
aaggtagagg cctcagggtc cctgctgtag acggggcggg ggagagtacg atgggtgggg 120
```


451

```

cgtggtgggt cgtagggcgc tcgagatgga gccccagct tccttgatgg atcgcggggc 180
gcgagtggcc tagacaagcc ggagctggga ccggcaatcg ggcgttgatc cttgtcacct 240
gtcgcagacc ctcatccctc ccgtgggagc cccctttgga cactctatga ccctggaccc 300
tcgggggacc tgaacttgat gcgatgggag gctgtgcagg ctcgcggcgg cgcttttcgg 360
attccgaggg ggaggagacc gtcccggagc cccggctccc tctgttgga catcagggcg 420
cgcattggaa gaacgcggtg ggcttctggc tgctgggcct ttgcaacaac ttctcttatg 480
tgggtgatgct gagtgccgcc cacgacatcc ttagccacaa gaggacatcg ggaaaccaga 540
gccatgtgga cccaggccca acgccgatcc cccacaacag ctcatcacga ttgactgca 600
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tggtggstyc tyttggsctt cacctgctgc ccntnaccgt tgaggatgct gtgantctct 720
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```

<210> 531

<211> 525

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (502)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (510)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (523)

<223> n equals a,t,g, or c

<400> 531

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gtcggcattc ccgggtcgac ccacgcgtcc gggcccgttt ccggcggcgt cgcgcgtttg 60
cgarcctcgg gtggtcctca gggaggggtct ctcggccaga acacgtggat gccacccac 120
cactgagcct catggagggtg gtaacatttg gcgatgtggc tgtgcacttc tctcgggagg 180
agtggcagtg tctggaccct ggccagaggg ccctctacag ggaagtgatg ctggagaacc 240
acagcagtggt ggctggacta gcaggattcc tggttttcaa gcctgagctg atctctcggc 300
tggagcaggg agaagagcca tgggtcctcg acctgcargg agcagagggg acagaggcac 360
caargacctc caagacaggt gaggcttaga tcccatcgca gagaagccct ggggtgarga 420
gaaactkcar gaggggctca caactgtrgg tagctgtagg tgartcgcgg gggctacact 480
kggatgcctg ggaatgctac tnggggaaan cagcatccaa canct 525

```

<210> 532

<211> 1925

<212> DNA

<213> Homo sapiens

<400> 532

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gtgggtctgag gccggtacag ctgcgcgtct gcgggaatag gtgcagcggg cccttggcgg 60
gggactctga gggaggagct ggggacggcg accctaggag agttcttttg ggtgactttc 120

```

```

aagatggact ctactctaac agcaagtga atccggcagc gatttataga tttcttcaag 180
aggaacgagc atacgtatgt tctctcgtct gccaccatcc cattggatga cccactttg 240
ctctttgcca atgcaggcat gaaccagttt aaacccattt tcctgaacac aattgacca 300
tctcacccca tggcaaagct gagcagagct gccaataccc agaagtgcac cggggtggg 360
ggcaaacata atgacctgga cgatgtgggc aaggatgtct atcatcacac cttcttcgag 420
atgctgggct cttggtcttt tggagattac tttaaggaat tggcatgtaa gatggctctg 480
gaactcctca cccaagagtt tggcattccc attgaaagac tttatgktac ttactttggc 540
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gagataggag gggaggtggc agaaattcag actggtcttc agatacaaat cgacaaggac 720
aacagtcatc atctgactgc tacatatatg attctgctac tggctactat tatgaccct 780
tggcaggaac ttattatgac cccaataccc agcaagaagt ctatgtgccc caggatcctg 840
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ttttcttttg ttactgttct tgctgctaga acttttttaa ataaactttt tttcaatgtg 1860
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagggg 1920
ggggg                                           1925

```

```

<210> 533
<211> 502
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (469)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (482)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (487)
<223> n equals a,t,g, or c

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<400> 533

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catagaggca aacggtacac tgacagtacc gtccggaatt cccgggtcga cccacgcgtc 60
cgggtccgcaa agcctgagtc ctgtcctttc tctctccccg gacagcatga gcttcaccac 120
tcgctccacc ttctccacca actaccggtc cctgggctct gtccaggcgc ccagctacgg 180
cgcccgccg gtcagcagcg cggccagcgt ctatgcaggc gctgggggct ctggttcccg 240
gatctccgtg tcccgtcca ccagcttcag gggcgcatg ggggtccggg gcctggccac 300
cgggatagcc ggggtcttg caggaatggg agcatccaga acgagaagga gacctgcaa 360
aagctgaacg accgcctggc ctcttacctg gacaaaatga aggagcctgg agaccgagaa 420
accggaggct ggaaagcaaa aaccggggag cactttggag aagaagganc ccaggtcaga 480
gntcgnnagc cattaattca ag

```

<210> 534

<211> 1800

<212> DNA

<213> Homo sapiens

<400> 534

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tcgaccacg cgtccggccg cgcgcgccac tgccaggcgg ggatcgggcg gcgcgagctg 60
aggtggtgag ggactagctc ccgatgtgg agaagctggg gagaaggcgt gggaggaaga 120
tggaactcgt ggagaagggg gccgccacct ccgtctccaa cccgcggggg cgaccgtccc 180
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ccaaacaatt tgggtgcaca gtatcatcga gaagtcttga agtttcaaaa gacagctcta 480
cctcactaga tgccatcata gaatttctta attatcataa tgaggttgac attgtaggaa 540
atattcaagc taacttctca tgtttacatc ctactgatct tcaaaaagtt gcagaaatga 600
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gtttgtgtgc tttcaaagat gttgggattt tatttatctg gggacagtgt gtatggtaag 1740
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<210> 535

<211> 2497

<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (2467)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2487)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2493)
<223> n equals a,t,g, or c

<400> 535
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gacaagcccg catctttctt taaagagaca cctctggacc tgcagcaccg gctcttcatg 720
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ggatgtggca gctgcagtgg gcttggtctt gtgaggaact gagtgtgtcc acgttggggg 1860
aacatcatat ttgatacaca cgtttttatt tgcacaaaga aaatgctrtt tttggagcca 1920

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gaattttcat gtctgattta tgggtgatttt cttagaacc agaactgctg gcagaaaggg 1980
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aggccanaac tgatggaccg cactacntcc cantcca 2497

```

<210> 536

<211> 4090

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (42)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (528)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (535)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2475)

<223> n equals a,t,g, or c

<400> 536

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cctgtggctt ccagtcagtc cagcccgcac ctctcccatg ggagggcctg aragcgcg 120
aacatcctgg gcccttggga tctcagagggc tggaccttcc tgggagactc attgagtaag 180
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457

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<211> 586

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<400> 537

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<210> 538

<211> 1250

<212> DNA

<213> Homo sapiens

<400> 538

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458

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<211> 1350

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1344)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1349)

<223> n equals a,t,g, or c

<400> 539

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<210> 540

<211> 2509

<212> DNA
<213> Homo sapiens

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<222> (3)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (38)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (367)
<223> n equals a,t,g, or c

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<210> 541

<211> 1743

<212> DNA

<213> Homo sapiens

<400> 541

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<210> 542

<211> 2210

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (40)

<223> n equals a,t,g, or c

<400> 542

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<210> 543

<211> 1715

<212> DNA

<213> Homo sapiens

<400> 543

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<210> 544

<211> 3109

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1011)

<223> n equals a,t,g, or c

<400> 544

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gaccaagata tggtttttga gaggcagggg agcctaaatt tggcattgaa cctaagtctg 180
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<210> 545

<211> 1176

<212> DNA

<213> Homo sapiens

<400> 545

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<210> 546

<211> 1735

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<400> 546

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465

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ccgccccacc ccatcatctg tggacactgg agtctggaat aaatgctgtt tgtcacatca 1680
amaaaaaaaaa aaaaaaaaaatt cgrgggggggc ccggtaccca atttgcagga tggga 1735

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<210> 547

<211> 1048

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1043)

<223> n equals a,t,g, or c

<400> 547

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<210> 548

<211> 736

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (719)

<223> n equals a,t,g, or c

<220>

<221> misc feature
 <222> (724)
 <223> n equals a,t,g, or c

<220>
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 <222> (727)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (734)
 <223> n equals a,t,g, or c

<400> 548
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaagggcgnc 720
 ctantntaa atcncg 736

<210> 549
 <211> 2231
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (2224)
 <223> n equals a,t,g, or c

<400> 549
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<210> 550

<211> 1816

<212> DNA

<213> Homo sapiens

<400> 550

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<210> 551

<211> 2610

<212> DNA

<213> Homo sapiens

<400> 551

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<211> 4021

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<400> 552

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<211> 1780

<212> DNA

<213> Homo sapiens

<400> 553

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<211> 3713

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<211> 1997

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1887)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1951)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1980)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1992)

<223> n equals a,t,g, or c

<400> 555

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```

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cggtagcccgct ctctgtccct ccatggcacc gaagggcgct tctctgggtc tggggccaag 1140
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```

<210> 556

<211> 906

<212> DNA

<213> Homo sapiens

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<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (879)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (906)

<223> n equals a,t,g, or c

<400> 556

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caacatggag agaatcatga aagcacaagc gtaccaaagc ggcaaggaca tctctacaaa 180
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agaagagccc gaagaagaac ctgaagagac agcagaagac acaacagaag acacagagca 480
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cccttctccc ctgcactgta aaatgtggga ttatgggtca caggaaaaag tgggtttttt 720
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```



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ttgatgtaaa atcttgtcat gtgtataaaa ataaaaaaga tcccaaataa aaaaaaaaaa 840
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cccctn                                           906

```

<210> 557

<211> 3484

<212> DNA

<213> Homo sapiens

<400> 557

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aaacagatat atatgtcatt tttggcttaa ggagtttggc taagttagct tttcaactgg 240
cactgtatgg cagcattttt tggatagggt agcatggcac atggcgaaac ataaagcatt 300
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aagt

```

<210> 558

<211> 790

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (788)

<223> n equals a,t,g, or c

<400> 558

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tgtactgggt gtgtaacagg acaccgcatg cagccctcag gaggggctct gtgcttctra 660

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477

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ggccctcncg 790

<210> 559

<211> 558

<212> DNA

<213> Homo sapiens

<400> 559

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aaaaaaaagg gsggcccc 558

<210> 560

<211> 534

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (16)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

<400> 560

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<210> 561

<211> 3043

<212> DNA

<213> Homo sapiens

<220>
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<222> (3038)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (3039)
<223> n equals a,t,g, or c

<400> 561

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<210> 562

<211> 1386

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (480)

<223> n equals a,t,g, or c

<400> 562

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<210> 563

<211> 2638

<212> DNA

<213> Homo sapiens

<400> 563

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<210> 564

<211> 691

<212> DNA
 <213> Homo sapiens

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 <223> n equals a,t,g, or c

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 <223> n equals a,t,g, or c

<220>
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<220>
 <221> misc feature
 <222> (619)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (650)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (653)
 <223> n equals a,t,g, or c

<400> 564
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 gagggacccc caccagga tgacactcca ggaaggggac tgcagaggaa gccagactgt 180
 gtccctgaca atgggaacag ccgacagtga tgagatggcc ccggaggccc cacagcacac 240
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 ggactctgct aacgctggca agctttctnc acagncatcg ntggcctcaa actttgggaa 600
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 tcgagtggat tggaacactt caagccccca a 691

<210> 565
 <211> 1967
 <212> DNA
 <213> Homo sapiens

<400> 565

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attaagccag ggattgtggg acttcccca ggcaactaaa cctgcaggat gaaaatgcta 480
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaggg ggggggag 1967
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<210> 566

<211> 1334

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1253)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1307)

<223> n equals a,t,g, or c

<220>
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 <222> (1309)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (1312)
 <223> n equals a,t,g, or c

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 cttggtgaag ttcgacaccc agtaccoccta cgggtgagaag caggatgagt tcaagcgtct 360
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 tcgaggggcc caag 1334

<210> 567
 <211> 1610
 <212> DNA
 <213> Homo sapiens

<400> 567
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 gaaagcacta ggTTTTcttg attcaaagag taaagattct gctgaaaagc taaaagcact 180
 gcttgatgaa tctttggctc ggggcattga ttccagttac cgtccatctc aaaaggatgt 240
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 ggaagctgaa aagagacctg ctgataaaat gaaatcagac atcactgaag gaggttgatat 420
 tccaaaagaa cctagattgg agaaaccaga aacacagtca tctccatta ctgtccaaag 480
 tagcaaggat ttacctatgg ctgacctttc cagttttgag gagaccagtg ctgatgattt 540
 tgccatggag atgggattgg cctgcgttgt ttgtaggcaa atgatggtg catctggcaa 600

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tcaattagta gaatgtcagg agtgccataa tctctaccac cgagattgtc ataaaccca 660
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acaaatgaaa agaattggctc aaaaaactca gaaaccaccg cagaaaccag cccctgcagt 780
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<210> 568

<211> 1412

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1018)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1037)

<223> n equals a,t,g, or c

<400> 568

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485

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agaactctta aagtgtgtnaca gttacgccat acttcataag tggtaaagaa aggtataaaa 1080
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<210> 569

<211> 1125

<212> DNA

<213> Homo sapiens

<400> 569

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gccatggcta gtcagtctca ggggattcag cagctgctgc aggccgagaa gcgggcagcc 180
gagaagggtg ccgaggcccg caaaagaaag aaccggaggc tgaagcaggc caaagaagaa 240
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<210> 570

<211> 1916

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1899)

<223> n equals a,t,g, or c

<400> 570

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<210> 571

<211> 1253

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1205)

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<220>

<221> misc feature

<222> (1207)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1212)

<223> n equals a,t,g, or c

<400> 571

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<210> 572

<211> 2013

<212> DNA

<213> Homo sapiens

<400> 572

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488

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<210> 573

<211> 669

<212> DNA

<213> Homo sapiens

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<222> (445)

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<220>

<221> misc feature

<222> (631)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (638)

<223> n equals a,t,g, or c

<400> 573

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<210> 574

<211> 2432

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (7)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2326)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2367)

<223> n equals a,t,g, or c

<400> 574

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<210> 575

<211> 1372

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (71)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1338)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1370)

<223> n equals a,t,g, or c

<400> 575

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491

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<210> 576

<211> 2020

<212> DNA

<213> Homo sapiens

<400> 576

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<210> 577

<211> 3161

<212> DNA

<213> Homo sapiens

<400> 577

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<210> 578

<211> 2046

<212> DNA

<213> Homo sapiens

<400> 578

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<210> 579

<211> 302

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<223> n equals a,t,g, or c

<220>
<221> misc feature
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<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (241)
<223> n equals a,t,g, or c

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tg 302

<210> 580
<211> 3067
<212> DNA
<213> Homo sapiens

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<222> (626)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1808)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2945)
<223> n equals a,t,g, or c

<400> 580
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<210> 581

<211> 1574

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (457)

<223> n equals a,t,g, or c

<400> 581

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aaaaaagggc ggcc 1574
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<210> 582

<211> 960

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (924)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (937)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (939)

<223> n equals a,t,g, or c

<400> 582

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<210> 583

<211> 541

<212> DNA

<213> Homo sapiens

<400> 583

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<210> 584

<211> 2968

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (454)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1437)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2961)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2964)
<223> n equals a,t,g, or c

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<210> 585

<211> 2608

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (84)

<223> n equals a,t,g, or c

<400> 585

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500

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<210> 586

<211> 1893

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1184)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1865)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1883)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1887)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1893)

<223> n equals a,t,g, or c

<400> 586

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<210> 587

<211> 2463

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2413)

<223> n equals a,t,g, or c

<400> 587

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<210> 588

<211> 1945

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1240)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1939)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1945)

<223> n equals a,t,g, or c

<400> 588

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<210> 589

<211> 816

<212> DNA

<213> Homo sapiens

<400> 589

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<210> 590

<211> 2307

<212> DNA

<213> Homo sapiens

<400> 590

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<210> 591
<211> 1438
<212> DNA
<213> Homo sapiens

<400> 591
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<210> 592
<211> 1078
<212> DNA
<213> Homo sapiens

<400> 592
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aacgggggag ctccctgccag gagccgaata actgctctgc ttattaaccc gaacgttcgg 720
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gcctcaggag ccacccagag cctcacaggc tgagttcttg cctctgtgtc ctgtccttcc 840
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<210> 593

<211> 2492

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2113)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2452)

<223> n equals a,t,g, or c

<400> 593

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```

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aatgtgagt gtgggtttgt atctaataaa gtatgccaac acctgtgttt gngatcagtt 2460
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<210> 594

<211> 1904

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1878)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1893)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1895)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1903)

<223> n equals a,t,g, or c

<400> 594

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gacttgagac cagttgaata aaagtgcaca ccttaaaaaa aaaaaaaaaa aaaaaaaaaa 1860
aaaaaaaaaa aaaaaaanag gggggggccc ccnanggggc ccna 1904
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<210> 595

<211> 337

<212> DNA

<213> Homo sapiens

<400> 595

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cttcagcrgt tcccaggctc cctacctgag tccagctgtc cccttttctg ggactattca 180
aggaggtctc caggacggac ttcagatcac tgtcaatggg accgttctca gctccagtgg 240
aaccagtgga aatgacattg ccttccactt caaccctcgg tttgaagatg gaggggtacgt 300
ggtgtgcaca gcaggcagaa cggaagctgg ggggccc 337
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<210> 596

<211> 1288

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1283)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1285)

<223> n equals a,t,g, or c

<220>

<221> misc feature
<222> (1287)
<223> n equals a,t,g, or c

<400> 596
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aagtgactag ctccccttcg ttgtcagcca gggacgagaa cacagccacg ctcccacccg 180
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gtataaatgt tgtataaaat tcttttacag ctacagattt ttaaatagga tcattgtaar 1140
gattaatgag ataatgtttt aacatagtcg ctgggtccat gataagtgtt aaatttttca 1200
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<210> 597
<211> 1052
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (937)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (943)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (995)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1004)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1009)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1040)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1051)

<223> n equals a,t,g, or c

<400> 597

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tgcgacttg ccaaaagaag taagacagct tgctgaagat ttcctgaaag actatattca 240
tataaacatt ggtgcacttg aactgagtgc aaaccacaac attcttcaga ttgtggatgt 300
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<210> 598

<211> 2093

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (969)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (1422)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1425)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (1481)
<223> n equals a,t,g, or c

<400> 598
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taaaagaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 2093

<210> 599
<211> 562
<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (349)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (383)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (437)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (445)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (473)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (524)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (549)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (561)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (562)

<223> n equals a,t,g, or c

<400> 599

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gcccgttant aaaaaaaaaa nn 562
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<210> 600

<211> 528

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

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<220>

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<222> (2)

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<220>

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<222> (8)

<223> n equals a,t,g, or c

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<221> misc feature

<222> (9)

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<222> (444)

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<220>

<221> misc feature

<222> (458)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (493)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (507)

<223> n equals a,t,g, or c

<400> 600

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gccgctctag aactagtgga tcccccgggc tgcaggaatt cggnacgagg gaggctgagg 120
ctggagtgca gtggtgtgat ctcggtctac tgcaacctct gcctcccagg ttccagcaat 180
tctcctgcct cagcctccct agtggctggg atgacaggcg cctgccatca tgcctgacta 240
gtttttgtat ttttagtaga gacggcgttt caccatgttg gccaggctgg tctcaaactc 300
ctgacctcag gtgatccgcc tacctcagcc tcccaaagtg ctgggattac aggcgtgatac 360
caccacacct ggcccttgca atcttctact ttaaggtttg cagagataaa ccaatanatc 420
cacaccgtac atctgcaata tganttcaag aaaggaanta gtaccttcaa tacttaaaaa 480
tagtcttcca canaaaatac tttattnctg atctatacaa attttcag 528
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<210> 601

<211> 475

<212> DNA

<213> Homo sapiens

<220>

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<220>

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<222> (160)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (172)

<223> n equals a,t,g, or c

<220>

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<222> (174)

<223> n equals a,t,g, or c

<220>

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<222> (185)

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<220>

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<222> (191)

<223> n equals a,t,g, or c

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<221> misc feature

<222> (199)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (212)

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<222> (250)

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<222> (297)

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<222> (302)

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<221> misc feature

<222> (306)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (341)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (389)
<223> n equals a,t,g, or c

<220>
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<222> (413)
<223> n equals a,t,g, or c

<220>
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<222> (444)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (450)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (468)
<223> n equals a,t,g, or c

<400> 601
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atattttgcg agtactcaac accaaccatcg atggggcggcg gaaaatagcc tttgccatca 120
ctgccattaa ggggtgtgggc cgaanatatg ctcatgtggn gttgaggaaa gnanacattg 180
acctnaccaa nagggcggna gaactcactg angatgangt ggaacgtgtg atcaccatta 240
tgcagaatcn acgccagtac aagatcccag actggttctt gaacagacag aatgatngta 300
angatnaatc tacttcaagc taacatgcta tcatttctac nttgagtact gctaagggtt 360
ctttccacaa cttgtacaca atggttattna ctgcccagtt tataatttcc ctnttggttc 420
ccattttaag acttatttaa ttantatgcn ttttaaattt ttgagacntg ataga 475

<210> 602
<211> 288
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (84)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (100)
<223> n equals a,t,g, or c

517

<400> 602

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cacattctca ggaactctcc ttctttgggg agcctcagat gggaagggac tcgagcccca 60
cctgtccctg gactctggaa tgtntggctg aagttgaggn tctcttactc tctaggccac 120
ggaattaacc cgagcaggca tggaggcctc tgctctcacc tcatcagcag tgaccagtgt 180
ggccaaagtg gtcaggggtg cctctggctc tgccgtagtt ttgcccctgg ccaggattgc 240
tacagttgtg attggaggag ttgtggccat ggcggctgtg cccatggt 288

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<210> 603

<211> 432

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (365)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (408)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (416)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (421)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (425)

<223> n equals a,t,g, or c

<400> 603

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ggcgccccgg agagctcttg cgcgtcttgt tcttgccctgg tgtcgggtgt tagtttctgc 60
gacttggtgtt gggactgctg ataggaagat gtcttcagga aatgctaaaa ttgggcaccc 120
tgcccccaac ttcaaagcca cagctgttat gccagatggt cagtttaaag atatcagcct 180
gtctgactac aaaaggaaaa tatgttgtgt tcttctttta ccctcttgac ttcacctttg 240
tgtgccccac ggagatcatt gctttcagtg atagggcaga agaatttaag aaactcaact 300
gccaagtgat tgggtgcttct gtggattctc acttctgtca tctagcatgg gtcaatacac 360
ctaanaaaca aggaggactg ggacccatga acattccttt ggtatcanac ccaacncaca 420
nttgntcagg at 432

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<210> 604

<211> 371

<212> DNA

<213> Homo sapiens

<220>
<221> misc feature
<222> (282)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (291)
<223> n equals a,t,g, or c

<400> 604
atttagtggtg ataaggagaa gaacctgctg catgtcacag acaccggtgt aggaatgacc 60
agagaagagt tgggttaaaaa ccttggtacc atagccaaat ctgggacaag cgagttttta 120
aacaaaatga ctgaagcaca ggaagatggc cagtcaactt ctgatttgat tggccagttt 180
ggtgtcgggtt tctattccgc cttccttgta gcagataagg ttattgtcac ttcaaaacac 240
aacaacgata cccagcacat ctgggagtct gactccaatg anttttctgt naattgctga 300
cccaagaggg aaacactcta ggacggggga acgacaattt acgtggagta tggaccaatt 360
tccttattaa g 371

<210> 605
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (292)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (322)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (330)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (331)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (342)
<223> n equals a,t,g, or c

<220>

<221> misc feature
 <222> (363)
 <223> n equals a,t,g, or c

<400> 605
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 ctttcaggat taagcgattc ctggccaaga aacaaaagca aaatcgctcc attccccagt 120
 ggattcggat gaaaactggg aaataaaatc aggtacaact ccaaaaggag acattggaga 180
 agaaccaagc tgggtctatg aaggaattgc acatgagatg gcacacatat ttatgctgtc 240
 tggaagggtgc acgatccatg ttaccatatg caagctggaa aatgtgcacc antatctggg 300
 agatttttgcg cgtgtttttc cncctctggan nctgtttatg gnacaagggt ggtttggttt 360
 ggntccatta aattaaatta ggtaaaggcc cc 392

<210> 606
 <211> 442
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (255)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (312)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (368)
 <223> n equals a,t,g, or c

<400> 606
 gcgtcttcag ggtggaagcc tggcgcacgt ccggagagac acccgccatt tcacccagta 60
 agcgggcccg gcctgcggag gtgggcggca tgcagctccg ctttgcccgg ctctccgagc 120
 acgccacggc cccaccccgg ggctccgcgc gcgccgcggg ctacgacctg tacagtgcct 180
 atgattacac aataccacct atggagaaag ctgttggtgaa aacggacatt cagatagcgc 240
 tcccttctgg gtgtnatgga agagtggctc cacggtcagg cttggctgca aaacacttta 300
 ttgatgtagg antgggtgtca tagatgaaga ttataagagg aatgttggtg ttgtactgtt 360
 taatttttngg caagaaagtt tgaagtcaaa aaagggtgatc gaattgcaca gtcatttgca 420
 acggattttt tatccagaaa ta 442

<210> 607
 <211> 182
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (53)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (124)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (132)

<223> n equals a,t,g, or c

<400> 607

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gcaccatggc ggttggaag aacaagcgcc ttacgaaagg cggcaaaaag ggngccaaga 60
agaaagtggg tgatccattt ttaagaaaag attggtatga tgtgaaagca cctgctatgt 120
tcantataag anatattgga aagacgctcg tcaccaggac ccaaggaacc aaaattgcat 180
ct 182
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<210> 608

<211> 673

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (561)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (569)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (603)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (604)

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<220>

<221> misc feature

<222> (627)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (630)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (652)

<223> n equals a,t,g, or c

<400> 608

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nncaaaatta accccctaataaaaattaatt aaccactcac tcatcgacct cccacccca 60
tccaacatct ccgcatgatg aaacttcggc tcaactccttg gcgcctgcct gatcctccaa 120
atcaccacag gactattcct agccatgcac tactcaccag acgcctcaac cgccttttca 180
tcaatcgccc acatcactcg agacgtaaat tatggctgaa tcatccgctg ccttcacgcc 240
aatggcgctt caatattcct tatctgcctc ttcctacaca tcgggcgagg cctatatattac 300
ggatcatttc tctactcaga aacctgaaac atcggcatta tcctcctgct tgcaactata 360
gcaacagcct tcataggcta tgtcctcccg tgaggccaaa tatcattctg aggggccaca 420
gtaattacaa acttactatc cgccatccca tacattggga cagacctagt tcaatgaatc 480
tgaggaggct actcagtaga cagtcccacc ctcacacgat tctttacctt tcacttcac 540
ttgcccttca ttattggcag ncctacagna ctcacctcta ttttttgccg aaacgggggat 600
canncaaccc ccttagggaa tcacctnccn tttccgataa aaatcaacct tncacccttt 660
actacacaat cat 673

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<210> 609

<211> 553

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (377)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (449)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (497)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (536)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (545)
<223> n equals a,t,g, or c

<400> 609
gcggacgcgt gggttttaat acaaattgta tttatagttt acaatgaatg cactgcataa 60
aaacttttgg acgacaatgg gaacattgct gaagaactga gcattctcaa atggaacaca 120
gacagtgtag aagaattcct gagtgaagag ttggaacgca tataaatctt gcttaaattt 180
tgtcctatcc ttttggttacc ttatcaaag aaatattaca gcacctagaa aataatttag 240
ttttgcttgc ttccattgat cagtctttta cttgaggcat taaatatcta attaaatcgt 300
gaaatggcag tatagtccat gatatactag gagttggcaa gcttaacaaa acccattttt 360
tataaatgtc catcctnctg catttggtga taccactaac aaaatgcttt gtaacagact 420
tgcggttaat tatgcaaatg atagtttgng ataattgggg ccaagtttta cgaacaacag 480
atttctaaat tagaganggt taccaggaca gatgatacta tgcctaaggg ctgggngccc 540
ttttnaagga aga 553

<210> 610
<211> 458
<212> DNA
<213> Homo sapiens

<220>
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<222> (17)
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<220>
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<222> (18)
<223> n equals a,t,g, or c

<220>
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<222> (215)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (225)
<223> n equals a,t,g, or c

<220>
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<222> (281)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (312)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (314)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (316)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (344)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (369)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (412)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (430)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (442)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (456)
<223> n equals a,t,g, or c

<400> 610
accacgcgct cccgctnncc gatgagacca atatatgcaa tggtaagcca gtagatggac 60
tgactacttt ggcgaatggg acattagttg cattccgagg tcattatttc tggatgctaa 120
gtccattcag tccaccatct ccagctcgca gaattactga agttttgggg aatcctttcc 180
cccattgata ctgttttact aaggggaatt tttcnagaaa aggtngcagc attcagcagt 240

524

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atatttataa acaggaacct gtacagaagt gcccttggaa naaggcctgc tctaaaatta 300
tccagtggta tngngnaacg acacagggtta agagacgtcg cttnaacgtg ctaaaaggac 360
ctttccaana cacaccatca gaatccataa tcacctgcca aatgggggtat cnagaccaag 420
gggcctccan aaggagttaa gngggtaccg tggggngg 458

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<210> 611
<211> 565
<212> DNA
<213> Homo sapiens

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<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (469)
<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (471)
<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (534)
<223> n equals a,t,g, or c

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<400> 611
aagcnganac caaccctcac taaagggaaac aaaagctgga gctccaccgc ggtgcggccg 60
ctctagaact agtggatccc ccgggctgca ggaattcggc acgaggttgc agtgagccga 120
gatcgcacca ttgcactcca gtctgggcaa cagagtgaga ttccgtctca aaaaaaaaaa 180
gaaaaggaaa aaaaaatagc attatacctc ttcttgtct caaccgccat gaaaattctg 240
aacactccaa attcagttga ataatccaaa acaaaattta taagtataaa ataattttac 300
ttcttatagt aatagtatac tttaaaaagc ctcagggtat attatcttct aaacagctac 360
aattcagtg cagctacatta accaactatg ttctctagtt gaggaacaac taggcctatt 420
tcaactgctgt gtagcctcag tgcctaacat gggtgccaaa taaatattnng nggattacac 480
tgaattgtaa aaaccattcg tttttgttta caattgccaa aaatctcaaa aggnccctgta 540
tttatgtaat tctttgaaat tatta 565

```

```

<210> 612
<211> 442
<212> DNA
<213> Homo sapiens

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<220>
<221> misc feature
<222> (229)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (253)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (294)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (297)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (319)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (328)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (333)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (365)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (413)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (415)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (440)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (441)
<223> n equals a,t,g, or c

<400> 612
gaccaggggtt gctccgtccg tgctccgcct cgccatgaact tcctacagct atcgccagtc 60
gtcggccacg tcgtccttcg gaggcctggg cggcggctcc gtgcgtattg ggccgggggt 120
cgcttttcgc gcgcccagca ttcacggggg ctccggcggc cgcggcgtat ccgtgtcctc 180
cgcccgcctt gtgtcctcgt cctcctcggg gggctacggc ggcggtang gcggcgctcct 240
gaccgcgtcc gangggctgc tggcgggcaa cgagaagcta accatgcaga actnaangac 300
cgcttggctt ctactggana agttcgcncc tgnaggggca aagggaacta aaagttaaat 360
ccgcnattgt acaaacaggg gcttggcctt cccggataaa gcattataaa gancntcagg 420
aattggggaa aaatttttgn nc 442

<210> 613
<211> 306
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (102)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (129)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (185)
<223> n equals a,t,g, or c

<220>

<221> misc feature
 <222> (190)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (192)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (199)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (213)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (237)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (272)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (299)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (302)
 <223> n equals a,t,g, or c

<400> 613
 ggcanaggag aactccagga ttgtcctgca gatcgacaac gcccgtttgg ctgcagatga 60
 ctccgaacc aagtttgaga cggaacaggc tctgcgcatg ancgtggagg ccgacatcaa 120
 cggcctgcnc aggtgctgga tgagctgacc ctggcccaga accgaccttg gngatgcagt 180
 tcgangcctn angaagagnt ggcctaccta agnaggaccc tgagggggaa tcaattncgt 240
 taagggggcca atgggaggcc attaattttg anttggttcc ttccggacct tttggccant 300
 cntggtt 306

<210> 614
 <211> 555
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (392)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (409)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (433)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (497)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (543)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (545)
 <223> n equals a,t,g, or c

<400> 614
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 ttccgaacca agtttgagac ggaacaggct ctgcgcatga gcgtggaggc cgacatcaac 180
 ggcctgcgca ggggtgctgga tgagctgacc ctggccagga cgcacctgga gatgcagatc 240
 gaaggcctga aggaagagct ggcctacctg aagaagaacc atgaggagga aatcagtagc 300
 cttagggggc aagtgggagg ccagggtcagt gtggagggtg attccgctcc gggcaccgat 360
 ctcgccaaga tcctgagtga catgcgaagc onatatgagg tcatggccna gcagaaccgg 420
 aaggatgctt aancctggtc accagccccg actgaagaat tgaaccggga ggtcgcttgc 480
 cacacggagc aacttcngat gagcagggtcc aaggttactg acctgcggcg caacccttaa 540
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<400> 615

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| ctctagaact | agtggatccc | ccgggctgca | ggaattcggc | acgaggctaa | ggctgcgttg | 120 |
| gggtgaggcc | ctcacttcat | ccggcgacta | gcaccgcgtc | cggcagcgcc | agnccctacac | 180 |
| tcgcccgcgc | catggcctct | gtctccgagc | tcgcctgcat | ctactcggcc | ctcattctgc | 240 |
| acgacgatga | ggtgacagtc | acggaggata | agatcaatgc | cctcattaaa | gcagccggtg | 300 |
| taaatgttga | gccttttttg | cctggcttgt | ttgcaaaggc | cctggccaac | gtcaacattg | 360 |
| ggagcctcat | ctgcaatgta | ggggccggtg | gacctgctcc | agcagctggt | gctgcaacca | 420 |
| gcaggaggtc | ctgccccctc | cactgctgct | gctccagctg | aggagaagaa | agtggaagca | 480 |
| aagaaagaag | aatccgagga | gtctgatgat | gacatgggct | ttggtctttt | tgactaaacc | 540 |
| tcttttataa | catgttcaat | aaaaagctga | acttt | | | 575 |

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<400> 616

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| gtcgccctcct | acctgctggc | tgccttaggg | ggcaactcct | ccccagcgc | caaggggnatc | 120 |
| aagaagatct | tggacaacnt | gggtatcgag | gcggacgacg | accggctcaa | caaggttatc | 180 |
| agtgaactga | atggaaaaaa | cattgaagac | gtcattgccc | agggtatttg | caagcttgcc | 240 |
| agtgtacctg | ctggtggggc | tgtagccgtc | tctgctgccc | caggctctgc | agccccctgct | 300 |
| gctggttctg | cccctgctgc | agcagaggag | aagaaagatg | agaaga | | 346 |

530

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 ttcttgggccg gaggcacgc cgccgccatc tccaagacgg ccgtggctcc gatcgagcgg 180
 gtcaagctgc tgctgcaggt ccagcacgcc agcaagcaga tcgccgccga caagcagtac 240
 aagggcatcg tggactgcat tgtccgcac cccaaggagc agggcgtgct gtccttctgg 300
 aggggcaacc ttgccaacgt cattcgctac ttccccactc aagccctcaa cttcgncctc 360
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atctgaagag ggtgaccctg gagcttggag gaaagagccc ttgcattgtg ttagctgatg 180
ccgacttgga caatgctgtt gaatttgcac accatggggg attctaccac cagggccagt 240
nttgtatagc cgcattncagg atttttgttg aagaatcaat ttatgatgag tttgttcgaa 300
ggagtgttga gcgggttaag antatatacct tgggaantcc tttgacccca gnagttcann 360
caagnccntc agattgacaa ggaccatttg gtaaatactt gacccattg agagtnggaa 420
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<210> 619
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aaatggcgag actaccaccc aagggttggg tgggctgtct gagcgctgtg cccagtacaa 180
gaaggacgga gctgacttcg ccaagtggcg ttgtgtgctg aagattgggg aacacacccc 240
ctcagccctc gccatcatgg aaaatgccaa tgttctggcc cgttatgcca gtatctgcca 300
gcagaatggc attgtgcca tcgtggagcc tgagatcctc cctgatgggg accatgactt 360
gaagcgcttg ncagtatgtg accgaaaagg tgcttggctt gctgctacaa ggctcttgag 420
tgaccaccac atctacctgn aaggcacctt gctgaagccc aacatggtcc cccaggccat 480
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534

gcttgcactc anaagttttn ttatgaagga gattgcccacat ggccaacccg tctcaancgc 540
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gcca 604

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cccaacactc caggccctgc cccctcccac tcttgaagag gaggccgcct cctcggggct 180
ccaggctggc ttgcccgcgc tctttcttcc ctcgtgacag tgggtgtgtgg tgctgtctgt 240
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ggttgacaga aacacactgg ggaatggagc aaaacagtct ttgaatatcg aacacgcaag 120
gctgtgagac tacctattgt ngatattgca ccctatgaca ttggtggtcc tgatcaagaa 180
tttggtgtgg acntnggncc tgtttgnttt ttataaacca aactctatct gaaatcccaa 240
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 atgccaagag gctgtatggc tccgaggcct ttgccactga ctttcaggac tcagctgcag 180
 ctaagaagct catcaacgac tacgtgaaga atggaactcg aggactata acctgaacga 240
 catacttctc cagctgaagt acacaggcaa tgncagcgna ctnttcatcc tgcctgntca 300
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<210> 623
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 <212> DNA
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 cccaggacca cctcctgtca tcctgccagg aatgaaagac attaaaggag agaaaggaga 180
 tgaagggcct atggggctga aaggatacct gggcgcaaaa ggtatccaag gaatgccagg 240
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 caaggganac atngga 316

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<212> DNA
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catggtgaag gttggcggtc acatccttgg ggagtttggg aaacctgaat tntggggacc 180
cccgntncca gccccccagt ggcagttctc cctgctccac tncaagttcc atctgtgaca 240
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<220>
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tgtgtccccg tgactgaact ctgatcttga tagagagtcc cggccatggc agccaaagga 180
ggcaccgtca aagctgcttc agcattcaat gccactgaag atgcccagac cctgaggaag 240
gccatgaagg ggcttggcac cgacgaagat gccatcatca gcgtcctcgc ctaccgcaac 300
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tcattcttag ccatgacttc tggtcgaccg agatcaatca gctgatcgcc ggggtgaatn 240
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cangttantg accta                                     315

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542

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 gatgaattcc aaattctgct tgcttgcttt ttaatatgga tatgcttata cacttacact 180
 ttatgcacaa aatgtagggt tataataatg ntaacatgga catgatcttc tttataattc 240
 tactttgagt gctgtctcca tgtttgatgt atctgagcag gntgctccac aggtagctct 300
 agcagggctg gcaacttann aggtggngag cagagaattc tcttatccaa catcaacatc 360
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cactggccgt cgttttataa cgtcgtgact gggaaaaccc tggcgttacc caacttaatc 180
gccttgacgc acatccccct ttcgccagct ggcgtaatag cgaagaggcc cgcaccgatc 240
gcccttccca acagttgcgc agcctgaatg gcaaatggga cgcgccctgt agcggcgcat 300
taagcgcggc ggggtgtggtg gttacgcgca gcgtgaccgc tacacttgcc agcgccctac 360
gcccggtcct ttcgtttctt cccttccttt ctgcgccagt tcgccggnnt tccccgtnaa 420
gctntaaatn gggggctncc tttanggttc cgattaangn tttacgggac cttngaccca 480
aaaacttgat taggggtgat gttacntaat gggccatngc ctgataaacg gttttgccct 540
ttgannttgg agtcccgttn ttaaaaggga ctttggt 577

<210> 629
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<212> DNA
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cgtcgtgact gggaaaaccc tggcgntacc caacttaatc gccttgacagc acatccccct 180
ttcgccagct ggcagtaata gcgaagaggc ccgcaccgat cgcccttccc aacagttgcg 240
cagcctgaat ggcgaatggg acgcgccctg tagcggcgca ttaagcgcg cgggtgtggt 300
ggttacgcgc agcgtgaccg ctacacttgc cagcgcccta gcgnccgctc ctttcgcttt 360
cttcccttcc tttctcgcca cgttcgccgg ntttccccgt caagctctaa atcnggggct 420
ccctttangg ttccgatnta gtgctgtacg gcacctngac cccaaaaaac ttgattaggg 480
tgatggttca cgtngtggnc atcgccctga tagacggntt ttcgcccttt gacgttggag 540
nccacgttct taatagtgga ctctttggtc caaacnggan caacantgaa cccctatctc 600
ggnotattct ttgatttat nagggatttt gncgatttca ggnotatttg ntaaaaaaat 660
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<212> DNA
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550

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 ccctggcggt acccaactta atcgcccttc agnacatccc cntttcgcca gctggcgtaa 240
 tagcnaaaaag gcccgnaccg atcgcccttc ccaacagttg cgcagcctga atggcaaatg 300
 ggacncncnc tgtancggng cattaancnc ggcggtgtg gngggtaccc ncancngac 360
 cgctacactt gccagngcc tagcgccgc tcctttcgct ttcttcctt cctttntcgc 420
 cacgttcgcc ggctttcccc gtcaagctnt aaatcgggg ctcccttag ggttccgatt 480
 aagngcttta cgggaccttn gncocaaaa aaacttgatt aggggngatg gntcacngta 540
 aaggggccat tgcccttgat aaaacggttn tttngccctt ttgaccttg aantccccgt 600
 ttctttaaaa aangggacct tttggttcna actgggaa 638

<210> 631
 <211> 187
 <212> DNA
 <213> Homo sapiens

<400> 631
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 gacgtcatag ctcttctata gtgtcaccta aattcaattc actggccgtc gttttacaac 120
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<210> 632
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 <212> DNA
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<220>
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cccgggtcga cccacgcgtc cgactagttc tagatcgcca gcggccgctc tagaggatcc 120
aagcttacgt acgcgtgcat gcgacgtcat agctcttcta tagtgtaacc taaattcaat 180
tcactggccg tcgttttaca acgtcgtgac tgggaaaacc ctggcggttac ccaacttaat 240
cgccctgcag cacatccccc tttcgccagc tggcgtaata gcgaagaggc ccgcaccgat 300
cgccc 305

<210> 633
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<212> DNA
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aaaaaaaaaa aaaaaaaaaa gggnggacga tctagaggat ccaaagctta cgtacnctn 180
natgcaa 187

<210> 634
<211> 243
<212> DNA
<213> Homo sapiens

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<222> (205)
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<220>
<221> misc feature
<222> (218)
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<220>
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<222> (229)
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caggtaccgg tccggaattc ccgggtngac ccacgcgtcc gtggaaatct gtcctccana 120
atccaggcca naaagttcac agtcaaattg ggaggggtat tcttnatgca ggagacccca 180
ggccctggag gctgcnacat acctnaatcc tgtcccangc cggatcctnc tgaagccctt 240

ttt

243

<210> 635

<211> 180

<212> DNA

<213> Homo sapiens

<400> 635

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gagggggcgg ccgctctaga ggatccaagc ttacgtacgc gtgcatgcga cgtcatagct 120
cttctatagt gtcacctaaa ttcaattcac tggccgtcgt tttacaacgt cgtgactggg 180

<210> 636

<211> 747

<212> DNA

<213> Homo sapiens

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ttacgtacgc gtgcatgcga cgtcatagct cttctatagt gtcacctaaa ttcaattcac 180
tggccgtcgt tttacaacgt cgtgactggg aaaaccctgg cgttacccaa cttaatcgcc 240
ttgcagcaca tccccctttc gccagctggc gtaatagcga agaggcccgcc accgatcgcc 300
cttcccaaca gttgcgcagc ctgaatggcg aatgggacgc gccctgtagc ggcgcattaa 360
gcgcggcggg tgtggtggtt acgcgcagcg tgaccgctac acttgccagc gccctagcgc 420
ccgctccctt cgctttcttc ctttccttc tcgccacgtt cgccggcctt ccccgtaag 480
ctctaaatcg ggggctncct ttagggntcc gatttaagt ctttacggac ctcgacccca 540
aaaaacttga ttagggatgat gggtcacgta gtgggccatc gcctgataga cggttttcgc 600
ctttgacggt ggagtcacgt cttaataggg actcttgtnc aaactggaac aacactnaac 660
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<210> 637

<211> 497

<212> DNA

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<221> misc feature

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<223> n equals a,t,g, or c

556

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<222> (497)

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<400> 637

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tcgtgactgg gaaaaccctg gcggtaccca acttaatcgc cttgcagcac atcccccttt 180
cgccagctgg cgtaatagcg aagaggcccc caccgatcgc cttcccaac agttgcgcag 240
cctgaatggc gaatgggacg cgccctgtag cggcgcatga agcgcggcgg gtgtgggtgg 300
tacgcgcagc gtgaccgcta cacttgccaa gcgccctaag cgcccgttcc tttcgctttc 360
ttcctttctt ttttngccac gttcggccgg cttttccccg taaagcttta aatcnggggg 420
gttcctttaa ggggttcoga ttaannggtt ttacgggaac ttngaccca aaaaaacttg 480
attagggggg aaggtn 497
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<210> 638

<211> 509

<212> DNA

<213> Homo sapiens

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<222> (348)

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<222> (385)

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<222> (394)

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 acgtcgtgac tgggaaaacc ctggcggttac ccaacttaat cgccttgcag cacatcccc 180
 tttcgccagc tggcgtaata gcgaagaggc ccgcaccgat cgcccttccc aacagttgcg 240
 cagcctgaat ggcgaatggg acgcgccctg tagcggcgca ttaagcgcg cgggtgtggt 300
 ggttacgcgc agcgtgaccg ntacacttgc cagcgcccta gcgcccgntc ctttcgcttt 360
 cttccttctt tctcggcacg gtcgnccggc tttncccgnc aagctntaaa tcgggggggt 420
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<210> 639
 <211> 507
 <212> DNA
 <213> Homo sapiens

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559

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 acgtcgtgac tgggaaaacc ctggcggttac ccaacttaat cgccttgacg cacatccccc 180
 tttcgccagc tggcataata gcgaagaggc ccgnaccgat cgcccttccc aacagttgcg 240
 cagcctgaat ggcgaatggg acncgccctg tagcggcgca ttaagcgcgg cgggtgtngt 300
 ggttacgcgc agcgtgaccg ctacacttgc agcnccttag cgcccgcctc tttcnntttt 360
 ttnccttcct ttntngcacg tttnacggct ttcccgtaa gctctanac gggggctcct 420
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 ntgtnttgng ccattgcctt atttccc 507

<210> 640
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 <212> DNA
 <213> Homo sapiens

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cctcaagggtt aaaccctcgg aatacgatag gaaaatgtaa aggccaagat ccaggataag 120
gaaggnattc ctctgaatn cagcagagaa ctgaatcttt gcctggncaa gcagctggga 180

563

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aggatgggac gttactttgt gctgaactta caatatttca aaaggggttc ttacttcttn 240
atcttggtgtt gagaatttcg tgggtgggtgc ttaggaaagg ggaaggagga agttttttaca 300
accattcccca ggaaggntta ggcccagggn aaagganggt ttaagntggt tgtncncgaa 360
atttttttagg gnggggttgng attgggcaan tnngtnggct ttgggtgggg ggttccccctt 420
tttaanngan ttnggggntt nggggngttt tttttggggn ggnaaathtt tttaaggnct 480
tttttttggg ggaaaaa 496

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<210> 641
<211> 186
<212> DNA
<213> Homo sapiens

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<220>
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<220>
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<220>
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<222> (148)
<223> n equals a,t,g, or c

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<220>
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<222> (167)
<223> n equals a,t,g, or c

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<220>
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gccagtgac accattgaga atgtcaaagc caaaattcaa gacaaggagg gnatcccacc 120
tgaccagcag cgnctgatat ttgccgnaa acagctggaa ggatggncgc aactctntca 180
gactac 186

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<210> 642
<211> 519
<212> DNA
<213> Homo sapiens

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<222> (168)

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<222> (209)

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<222> (218)

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<222> (284)

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<222> (396)
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<220>
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<220>
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gctccgatgt atttgatggt gacctgggaa tggggcagcc aagggctgca aagcctcccc 120
acacatgacc ccagccctct acagcggtaa ggtgagggac ccacattncc cctgccctct 180
gagacttngg gggacgttgc ccccctgana tgcagnnngg gcctgaatat gtgaaccagc 240
cagatgttcg gccccagccc ccttcgcccc gaagatgngc tngnctgctg cccgacctnc 300
ttggtgccac tctggnaagn ggccaagaat ctnttcccca gggagaatt gggtcgtcaa 360
aagnggtttt tgcnttttgg gggttccgtt gagaancccg agtangttta caacccaag 420
ggaagaanct tcccctnaag cccaacctt cttccttgct taagccagcc tttgacaacc 480
tctaataatt ggancaagan ccaacaaaac cgggggggtc 519

<210> 643
<211> 138
<212> DNA
<213> Homo sapiens

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<222> (36)
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<220>
<221> misc feature
<222> (72)
<223> n equals a,t,g, or c

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<222> (74)
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<222> (92)
<223> n equals a,t,g, or c

<220>
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<222> (102)
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<220>
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<222> (103)
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567

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gtgacatcta tnanaggaaa agtgatggca tntatatcat anntctcaag aggacctggg 120
agaagcttct gctgggca 138

<210> 644
<211> 602
<212> DNA
<213> Homo sapiens

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gcagcatggc tgaccaactg actgaagagc agattgcaga attcaaagaa gctttttcac 120
tatttgacaa agatggtgat ggaactataa caacaaagga attgggaact gtaatgagat 180
ctcttgggca gaatcccaca gaagcagagt tacaggacat gattaatgaa gtagatgctg 240
atggtaatgg cacaattgac ttccctgaat ttctgacaat gatggcaaga aaaatgaaag 300
acacagacag tgaagaagaa attagagaag cattccgtgt gtttgataag gatggcaatg 360
gctatattag tgctgcagaa cttcgccatg tgatgacaaa ccttggaaga gaagttaaca 420
gatgaagaag tttgatgaaa tgatcaggga agcagatatt gatggtgatg gtcaagtaaa 480
ctatgaagag tttgtaccaa atgatgacag caaaagtgaag agaccttttn ccagaatggg 540
gttaaatttc ttgnaccaaa antggttaat ttggcctttt ctttggttgg naacttatct 600
gn 602

<210> 645
<211> 112
<212> DNA

<213> Homo sapiens

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<222> (24)

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atgtgtatgt ccacatacca caccttagga attctcacga aaagtnttcc aa 112

<210> 646

<211> 514

<212> DNA

<213> Homo sapiens

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 ccgtgacaac aacaggggtgg gcttcgccga ggctgcccgc ctctagttcc caaggcgtcc 120
 gcgcgccagc acagaaacag aggagagtcc cagagcagga ggccccctggc ccagcgggcc 180
 ctcccacaca caccacaca ctcgcccgcc cactgtcctg ggcgccctgg aagccggcgg 240
 gccaaagccga cttgctgttt tgttctgtgg tttccccctcc ctgggttcaa aaatgctgcc 300
 tgctgtctgt ctctccatct tgtttggtgg gttaaactga tccaaaanaa aatttgttcc 360
 gtgattggaa aaaccaccca acttgggaanc nactottttt cctgggtcct tctctccagg 420
 atcccccccg gcctacaagc cgtnggttaa cctacccaac agngcncccg gcnccttgaa 480
 ctgcnctaa gcccttccaa ttggccattg gtcc 514

<210> 647
 <211> 525
 <212> DNA
 <213> Homo sapiens

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<220>
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 cctgctggac ggctccgagc ggctgggtga gcagaacttc cacaaggccc ggcgcttcgt 180
 ggagcaggtg gcgcggcggc tgacgctggc ccggagggac gacgaccctc tcaacgcacg 240
 cgtggcgctg ctgcagtttg gtggccccgg cgagcagcag gtggccttcc cgctgagcca 300
 caacctcacg gccatccacg aggcgctgga gaccacgcaa tacctgaact ctttctcgca 360
 cgtgggcgca ggcgtggtgc acgccatcaa tgccatcgtg cgcagcccgc gtggcggggc 420
 ccggaggcac gcagagctgc cttcgtggtc ctcacggacg gcgtcacggg caacgacagn 480
 ctgacgagtc ggcgcactcc atgcgcaagc agaacngnga ccac 525

<210> 648
 <211> 317
 <212> DNA
 <213> Homo sapiens

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<222> (79)
<223> n equals a,t,g, or c

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<220>
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<222> (176)
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<220>
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<223> n equals a,t,g, or c

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<220>
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<220>
 <221> misc feature
 <222> (301)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (316)
 <223> n equals a,t,g, or c

<400> 648
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 aagaaccgct gggaggacnc tggtaagcag ctctacaacg tggaggccac atcctatncc 120
 ctcttngccc tactgcagct aaaagncttt gactttgtnc ctcccgtcgt ncnttngctc 180
 aatgnacaga gatnctacgg tggtagntat ggctctaccc aggccacctt catggtgttc 240
 caagncttag ctcaatanca gaaggacggc cctgaccacc aggcactgaa ccttgangtg 300
 nacctccaaa tgctcng 317

<210> 649
 <211> 575
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (501)
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<220>

<221> misc feature

<222> (509)

<223> n equals a,t,g, or c

<400> 649

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ctttcaaagt tcaccaatac tttaatgtag agcttatcca gcctggagca gtcaaggtct 120
acgcctatta caacctggag gaaagctgta cccggttcta ccatccgga aaggaggatg 180
gaaagctgaa caagctctgc cgtgatgaac tgtgccgctg tgctgaggag aattgcttca 240
tacaaaagtc ggatgacaag gtcaccctgg aagaacggct ggacaaggcc tgtgagccag 300
gagtggacta tgtgtacaag acccgactgg caagggtcaa gctgtccaat gactttgacc 360
gagtacatca tggccattga gcagaccatc aagtcaggct cggatgaggt gcaggttgga 420
cagcagcgca cgttcatcag ccccatcaag tgcagagaag ccctgaagct tgaggagaag 480
aaacactact tcatgtgggg nctcttctnc caattctggg gagagaagcc caaccttagc 540
tacatcatcg ggaaggacac ttgggtggag cactg 575
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<210> 650

<211> 277

<212> DNA

<213> Homo sapiens

<220>

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<222> (186)

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<220>

<221> misc feature

<222> (243)

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<222> (256)

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<221> misc feature

<222> (265)

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<220>

<221> misc feature

<222> (267)

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<220>

<221> misc feature

<222> (269)

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<220>

<221> misc feature

<222> (276)

<223> n equals a,t,g, or c

<400> 650

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agagttaaca gaaggaatag aatgtcttca gacacattcc aagataaatg gcagagattt 120
gaccttcttg caagaacttg tatccaagtg tttaactgaa tattcatcta agcaaagtgg 180
ttccanacca aatgttccag aagtttgaaa atggatttgt tcttggacgt actgcacggc 240
aanctgaagc acaggntact aacgngntna acccanc 277
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<210> 651

<211> 357

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<220>

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<222> (13)

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<221> misc feature

<222> (106)
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<220>
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<222> (185)
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<220>
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<220>
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<222> (289)
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<220>
<221> misc feature
<222> (299)
<223> n equals a,t,g, or c

<220>
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<222> (321)
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<220>
<221> misc feature
<222> (324)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (355)
<223> n equals a,t,g, or c

<400> 651
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ttttttctgg gctggctcg cggcgnacng agatgggnagn gcagtnggac gaggccgtga 120
agtaatacac cctaggagga gattcagaag cacaaccaca gcaagagcac ctggnctgat 180
cctgncacca caaggtgtac gaatttgacc aaatttctgg nagaggcatc cctgggtgggg 240
gaggaagtgt taaggggaac aagcttgag gtgacgctac ttgaggaant tttgaggnt 300
gttcgggggca cttttaccag ntgncccaag ggaaaattgt tcccaaaaac atttnca 357

576

<210> 652
<211> 190
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (138)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (148)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (172)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (180)
<223> n equals a,t,g, or c

<400> 652
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cattttcctt atctgcttcc tagtcctgta tgcccttttc ctaacactca caacaaaact 120
aactaatact aacatctnag acgctnanga aatagaaacc gtctgaacta tctgcccgn 180
catcatccta 190

<210> 653
<211> 603
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (415)
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<220>
<221> misc feature
<222> (600)
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gtcaccctga agtttatatt cttatcctac caggcttcgg aataatctcc catattgtaa 120
cttactactc cggaaaaaaaa gaaccatttg gatacatagg tatgggtctga gctatgatat 180
caattggctt cctaggggtt atcgtgtgag cacaccatat atttacagta ggaatagacg 240
tagacacacg agcatatttc acctccgcta ccataatcat cgctatcccc accggcgta 300
aagtatttag ctgactcgcc aactccacg gaagcaatat gaaatgatct gctgcagtgc 360
tctgagccct aggattcatc tttcttttca ccgtaggtgg cctgactggc attgnattag 420
caaactcatc actagacatc gtactacacg acacgtacta ccgttgtagc ccacttccac 480
tatgtcctat caataggagc tggatttgcc atcataggaa ggcttcattc actgatttcc 540
ctattctcag gctacaccct agaccaaaac tacgccaaaa atcatttcac tatcataatn 600
cac 603

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<210> 654

<211> 356

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (198)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (270)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (302)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (328)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (340)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (347)

<223> n equals a,t,g, or c

<400> 654

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ggTTTTtttc ttcgcaggat ttttctgagc cttttaccac tccagcctag cccctacccc 60
ccaattagga gggcactggc cccaacagg catcaccccg ctaaattccc tagaagtccc 120

```

578

actcctaaac acatccgtat tactcgcac aggagtatca atcacctgag ctcaccatag 180
tctaataagaa aacaaccnaa accaaataat tcaagcactg cttattacaa ttttactggg 240
tctctatttt accctcctac aaagcctcan agtacttcga gtctcccttc accatttcgg 300
anggcaccta cggctcaaca ttttttgnag cccaggcttn cacgganttt cacgtc 356

<210> 655

<211> 682

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (660)

<223> n equals a,t,g, or c

<400> 655

gcgcaagtag gtctacaaga cgctacttcc cctatcatag aagagcttat cacctttcat 60
gatcacgccc tcataatcat tttccttatc tgcttcctag tcctgtatgc ccttttccta 120
acactcacia caaaactaac taataactaac atctcagacg ctcaggaaat agaaaccgtc 180
tgaactatcc tgcccgccat catcctagtc ctcacgcgcc tcccatccct acgcacccct 240
tacataacag acgagggtcaa cgatccctcc cttaccatca aatcaattgg ccaccaatgg 300
tactgaacct acgaggtacac cgactacggc ggactaatct tcaactccta catacttccc 360
ccattattcc tagaaccagg cgacctgcga ctcccttgacg ttgacaatcg agtagtactc 420
ccgattgaag cccccattcg tataataatt acatcacaag acgtcttgca ctcacgagct 480
gtccccacat taggcttaaa aacagatgca attcccgac gtctaaacca aaccactttc 540
accgctacac gaccgggggt atactacggc caatgctctg aaatctgtgg agcaaaccac 600
agtttcatgc ccacgggcct agaattaatt cccctaaaaa tctttgaaat aagggcccg 660
atttacccta tagcaccct ct 682

<210> 656

<211> 520

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (429)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (442)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (449)

<223> n equals a,t,g, or c

<220>

<221> misc feature

579

<222> (483)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (485)

<223> n equals a,t,g, or c

<400> 656

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gagaagagct tatcaccttt catgatcacg ccctcataat cattttcctt atctgcttcc 60
tagtcctgta tgcccttttc ctaacactca caacaaaact aactaatact aacatctcag 120
acgctcagga aatagaaacc gtctgaacta tcctgcccgc catcatccta gtccctcatcg 180
ccctcccatc cctacgcac ctttacataa cagacgaggt caacgatccc tcccttacca 240
tcaaataaat tggcaccaat ggtactgaac ctacgagtac accgactacg gcggactaat 300
cttcaactcc tacatacttc cccattatt cctagaacca ggcgacctgc gactccttga 360
cggtgacaat cgagtagtac tcccgattga agccccattc gtataataat tacatcacia 420
gacgcttgna ctcaagagct gnccacant aggccttaaaa acaggatgca atttccgggc 480
ggntnaaaca aaacaatttt accggtacac gaacgggggg 520
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<210> 657

<211> 353

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (227)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (340)

<223> n equals a,t,g, or c

<400> 657

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gcactttctg ccaaagaaat ctctcctttt gcttctagca ccgactagat ttccttcagc 60
tgatgattga ctcccagaat tcgaaagaaa ctgagtccca caaagctctg tctgatctgg 120
agctcgcagc ccagtcaata atcttcattt ttgctggcta tgaaaccacc agcagtgttc 180
tttccttcac tttatatgaa ctggccactc accctgatgt ccagcnaaaa ctgcaaaaagg 240
gagattgatg cagttttgcc caataaggca ccacctacct atgatgccgt ggtacagatg 300
gattaccttg acatggtggt gaatgaaacc tcaaattatn cccgttggtt tta 353
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<210> 658

<211> 362

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (203)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (215)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (240)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (262)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (310)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (321)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (333)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (338)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (362)
<223> n equals a,t,g, or c

<400> 658
ggcanaggcc accaccatcc tgcattgccc actttacttg gccttctcct ggctctaact 60
caggcagcca agaccctcc cacttccttc tttggcctcc ctctcctcag gtatgaaaat 120
gaagctggcc ctgcgcccag gcgtttgaag gctgacatca acggcttgcg ccgagtcctg 180
ggatgagctg accctggcca ggnctgacct ggagntgcag atcgagggcc tgaatgaggn 240

agctagcctt acctgaagtg gnaccacgaa ggagggagat ggaaggagtt tcagcagcca 300
gttgcccggn caagttcaat nttggagatg ggncggancc ccgggtgtgg gacctgaccc 360
gn 362

<210> 659
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (7)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (47)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (100)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (147)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (168)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (175)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (202)
<223> n equals a,t,g, or c

<220>
<221> misc feature

<222> (204)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (228)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (240)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (247)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (286)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (294)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (353)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (445)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (446)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (447)
<223> n equals a,t,g, or c

<400> 659
gcttctnccg tccttctagg atctccgcct ggntcggccc gcctgcntcc actcctgcct 60
ctaccatgtc catcaaggtg acccagaagt cctacaaggn gtccacctct agcccccg 120

```
ccttcagcag ccgctcctac acgaatnggc ccggttcccg catcaacncc tcgancttct 180
cccgaatagg cagcagcaac tntngcagtg gcctgggcgg cggctatngt ggggccagcn 240
gcatggcnagg catcaccgca gttacgggtca accagagcct gctgancccc cttntcctgg 300
aggtggacccc caacatccag gccgtgcgca cccaggagaa ggagcagatc aanaccctca 360
acaacaagtt tgcctcttca tagacaaggt aggttcctgg agcagcagaa caagatgttg 420
gaaaccaagt agagctcctt gagcnnn 447
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<210> 660

<211> 295

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (73)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (86)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (95)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (121)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (131)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (144)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (168)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (173)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (185)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (229)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (241)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (257)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (270)
<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (284)

<223> n equals a,t,g, or c

<400> 660

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ggnacgagcn aaggcctgca ccattctcct ccgggggggct agcaaagaaa ttctntcgga 60
agtagaacgn gancctccag gntgcnatgc aagtntgtcg caatgttctc ctgggaccct 120
nagctggtgc naggggggtgg ggcntccaaa atggctgtgg cccatgcntt ganagaaaaa 180
tccanggccca tggactgggtg tgggaacaat ggccatacag ggctgttgnc cagggcccta 240
naggttcatt cctcgtnacc ctggatccan aaactgtggg gggnccagcca ccatt      295
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<210> 661

<211> 212

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (207)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (210)

<223> n equals a,t,g, or c

<400> 661

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gttggcgtgc tgggcctgga cctctggcag gtcaagtctg gcaccatott tgacaacttc 60
ctcatcacca acgatgaggc atacgttgag gagtttggca acgagacgtg gggcgtaaca 120
aaggcagcag agaaacaaat gaaggacaaa caggacgagg agcagaggct taaggaggag 180
gaagaagaca agaaacgcaa agaggangan ga                                212
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<210> 662

<211> 130

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (48)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (123)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (129)

<223> n equals a,t,g, or c

<400> 662

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aaaatacatt ganatacatn atgaaggcca ctatnaccct ccttctgntt gcacaacttt 60
cctgggctgg accntttcat cagacaggct tattagactc tatgctagaa catgaagctt 120
atnggatcng                                     130
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<210> 663

<211> 232

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (21)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (138)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (139)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (195)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (205)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (216)
<223> n equals a,t,g, or c

<400> 663
gnctcatnnn gactgttctg ncccgattgt tgctgctggt gttggtgaat ttgaagctgg 60
tatctccaag aatgggcaga cccgagagca tgcccttctg gcttacacac tgggtgtgaa 120
acaactaatt gtcggtgna acaaaatgga ttccactgag ccaccctaca gccagaagag 180
atatgaggaa attgntaagg aagtnagcac ttaccnttaa gaaaaaactg gg 232

<210> 664
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (25)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (241)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (258)
<223> n equals a,t,g, or c

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<222> (279)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (292)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (294)
<223> n equals a,t,g, or c

<400> 664
agcggagacc cgcaagcgca agggnctgaa agaaggcatc cctgccctgg acaacttcct 60
ggacaaattg taggtggccc ctgcagcgcc tgccgccccg gggactcgca gcacccacag 120
caccacgtcc cgaattctca gacgacacct ggagactgtc ccgacactcc cctgagaggt 180
ttctggggcc cgctgcggtc acgagggggg gcccggttac ccaattcgtc ctatagtgat 240
natttacaat tcaactggncg tcgtttttaca agtcgtgtnt gagttttttt tntntt 296

<210> 665
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (282)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (334)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (335)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (336)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (342)

<223> n equals a,t,g, or c

<400> 665

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gggtcgaccc acgcgtccgg tttgccgcca gaacacaggt gtcgtgaaaa ctaccctaa 60
aagccaaaat gggaaaggaa aagactcata tcaacattgt cgtcattgga cacgtagatt 120
cgggcaagtc caccactact ggccatctga tctataaatg cgggtggcatc gacaaaagaa 180
ccattgaaaa atttgagaag gaggctgctg agatgggaaa gggctccttc aagtatgcct 240
gggtcttgga taaactgaaa gctgagcgtg aacgtggtat cnccattgga tatctccttg 300
tggaatttg agaccagcaa gtactatgtg actnnncatt gnatgcccc aggacacaga 360
gactttatcc agaaac 376
```

<210> 666

<211> 332

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (11)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (211)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (223)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (287)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (297)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (323)

<223> n equals a,t,g, or c

590

<220>
<221> misc feature
<222> (325)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (332)
<223> n equals a,t,g, or c

<400> 666
gccggatcct ncaatcttcg ctctctccaat ctccgctcct ccacccagtt caggaaccog 60
cgaccgctcg cagcgctctc ttgaccacta tgagcctcct gtccagccgc gcggcccgtg 120
tccccgggcc ttccagctcc ttgtgcgcgc tggttggtgct gctgctgctg ctgacgcagc 180
cagggcccat cgccagcgct ggtcctgccg ntgctgtggt ganagagctg cgttgccggt 240
tgtttacaga ccacgcaagg agtccatccc aaaaatgatc agtaatntgc aagtgtncgc 300
cataggccca acagtgtctc aangngggaa gn 332

<210> 667
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (53)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (81)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (93)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (124)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (128)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (140)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (146)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (188)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (241)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (295)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (334)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (339)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (355)

<223> n equals a,t,g, or c

<400> 667

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taggctgcag acctcacccg naccgatcca gancactcct cccaaggaca cttgtagccc 120
gganctgntc atgtccttgn atccanacaa attgtgccga cgacgccatg gaccctggta 180
ctaaaganag agcttggtgc gcatttggaa ttgcaccatg cacgggctg accttctggg 240
naccacagct gtgtaggcag aggacagggt gacaattttg tctttgcgca tggcntaatg 300
ccatctgtgg tcatgacagg ttgttcatca agtnnggant caggcaatga aggcngtggg 360
t
```

361

<210> 668
<211> 518
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (272)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (274)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (323)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (344)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (358)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (373)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (376)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (387)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (403)
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<220>

<221> misc feature
 <222> (411)
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<220>
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 <222> (446)
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<220>
 <221> misc feature
 <222> (455)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (491)
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 aagcatgagc ggatgaaggt ctatgtgccc actggcttct ctgccttccc ttttgagcta 120
 ttgcacacgc ctgaaaagtg ggtgaggttc aagtacccaa agctcatctc ctattcctac 180
 atggttcgtg gggggcactt tgcggccttt gaggagccgg agctgctcgc ccaggacatc 240
 cgcaagttcc tgtcggtgct ggagcggcat gnanccaccc ctctccccc gcttgccact 300
 tccccccaca atgccctcca ggnntttcttg ggggaagata accntttctg aggatgantt 360
 tgcctccgtc ccntgnccag ttggganccc agttcaaccc ctnaaccttc nagttaattc 420
 ccaaccccaa tcgtgtggta agcaangggg ttgangataa agattttaatc taaaaaaaaa 480
 aaaaaaaatc nggggggggc ccgtaacaat tgnccnaa 518

<210> 669
 <211> 545
 <212> DNA
 <213> Homo sapiens

<220>
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<220>
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 <222> (13)
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<220>
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 gcttccctcc aagaggaacc cggggttccc gagggaaacc ctctggagga ggaaacgtcc 180
 agcaccgagc tggagactgg cagtgtccca atccttcaat tggtgatttc tgctgtgatg 240
 taattgtatg caggggttgt ggaaaccaga acttcgcctg gagaacagag tgcaaccagt 300
 gtggtgatcg tggcagaggt ggccctggtg gcatgcnggg aggaagaggt ggcctcatgg 360
 atcgtggtgg tcccggtgga atgttcagag gtggccgtgg tggagacaga ggtggcttcc 420
 gtggtggccg gggcatggac cgaggtggct ttngtgagg aagacgaggt ggccctgggg 480
 ggcccttgga cctttgatgg aacagatggg aggaagaaga ggaggacgtg gaggacctgg 540
 gaaaa 545

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595

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 gctacagtca acatcttgat ntcactgtgc caactgcggt gcctgccctt canagccctg 180
 cactttgttt tntccctgg cttcatcnac tacatcagtg gcacccctca tgctctgatt 240
 gtgcgtcgct acctctccct gctggacacg gccgtggagc tgganctccc aagataccgg 300
 ggtccccgcc ttccccgaan gcagtaagtg cccatctttc cccaacctct cntcaccgac 360
 cgtgcccgcg gcaagtacng tcacaa 386

<210> 671
 <211> 436
 <212> DNA
 <213> Homo sapiens

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agattgacag catcagcgag agggcggggc acaagtgcac ggccactgag agtgtggacg 120
gagagctgtc aggctgcaat gccgccatcc tcaagcggga gaccatgagg ccatccagcc 180
gtgtggccct gatggtgctc tgtgagaccc accgcgcccg catggtcaaa caccactgct 240
gcccgggctg cggctacttc tgcacggcgg gcaccttctt ggagtgccac cctgacttcc 300
gtgtggccca ccgcttccac aaggcctgtg tgtctcagct gaatgggatg gtcttctgtc 360
cccactgtgg ggaggatact tctgaagctc aagangtgac catccccggg gtgacggggt 420
gacccaacgg ccggca 436

<210> 672

<211> 504

<212> DNA

<213> Homo sapiens

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601

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 atacacantg gagcnntctg ccaggcaant tatgcgcaca gccatgaagn ataacctggg 120
 tttngacctg agaacagctt cctatgntaa tgccattgng aangtcttca aagtgtacan 180
 tgaagctggg gtgaccttca catngatgga ncatggctga cttncnact atcctcttca 240
 catgtaactt ntgcagacct atcanaagtt tacatgtaac cacagnnntc cctttctctn 300
 ctgactnatt aataatggct accattctta acangttaat ccaagtncag cncgtttaag 360
 ggngnaaagg antcaagggt nggcgggttc atntncaagn tgcgtgtggn agtagtaatt 420
 ctntctgnan cagtgggncc atttttgggt attttnnctn tnaantan an agggctantt 480
 tnatcttggt gttgcagnct ttnc 504

<210> 673
 <211> 431
 <212> DNA
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602

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 agtactgcgg cctcctctcc tctcctaacc tcgctctcgc ggccctagctt taccgcgccg 180
 cctgctcggc gaccagaaca ccttccacca tgaccacctc agcaagttcc cacttaaata 240
 aaggcatcaa gcagggtgtac atgtccctgc ctcagggtga gaaagtccag gccatgtata 300
 tctggatcga tgggtactgga gaaggactgc gctgcaagac ccggaccctg gacagtgagc 360
 ccaagtgtgt ggaagagttg cctgagtgga atttcgatgg ctctagtact tnacagtctg 420
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<210> 674
 <211> 370
 <212> DNA
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aaggcgaggt agccctctgt tgattggtgt acggagtga cataaacttt ctactgatca 180
cattcctata ctctacagaa caggcaaaga caagaaagga agctgcaatc tctctcgngt 240
ggacagcaca acctgccttn tcccggngga agaaaaagca gnggagtatt actttgcttc 300
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gcagcaagna 370

<210> 675
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<213> Homo sapiens

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<220>
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<222> (329)
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gtggtgatgg tgactcacca gagcagtga cggctggctg gagggcgtga ggctctcaga 180
cggggagcga ggctggtttc ctgtgacagc nntgngagtt catttccaac ccagaggtcc 240
gtgacacaga acctgaaggg aagcttcacg gagtgaaga cttgccaaac tacagctngt 300
gggaacagca agcctnantt ttctnctgna gaaggagttt tcgtgagctg gaagaacaag 360
ttg 363

<210> 676
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<212> DNA

606

<213> Homo sapiens

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<400> 676

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agaatctggt aaaagcacca ttgtgaagca gatgaggatc ctgcatgtta atgggtttaa 180
tgagagacagt gagaaggcaa ccaaagtgcg gganatcaaa aacaacctga aagaggcgat 240
tgaaaccatt gtggccgcga tgagcaacct ggtgcccccc gtggagctgg ccaaccccca 300
aaaccagttc agagtggact acatcctgag tgtgatgaac gtgcctgact ttnacttccc 360
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<210> 677

<211> 550

<212> DNA

<213> Homo sapiens

607

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gggagcgcaa cgtgctcatc ttgacctg gcgggggcac ctgcgacgtg tccatcctga 180
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aggactttga caacaggctg gtgaaccact tcgtggagga gttcaagaga aaacacaaga 300
aggacatcag ccagaacaag cgagccgtga ggcggctgcg caccgctgcg agagggccaa 360
gaggaccctg tcgtccagca cccaggccag cctggagatc gacttccttg ttttgagggc 420
atcgacttnt acacgttcat caccaggcgg aaggttcgaa ggagctgtgc ttccgacctt 480
gntnccnaaa caccctgagg aaccctgtgg gaaaaaaggc ttnttgcgcc gaaaggccca 540
ancttgggac 550

<210> 678
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<212> DNA

<213> Homo sapiens

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 atggaggata tgggctacac tgggtacaac aactactatg gatatggtga ttatagcaac 180
 cagcagagtg gttatgggaa ggtatccagg cgagggtggtc atcaaaatag ctacaaacca 240
 tactttaaatt attccatttg caacttatcc ccaacagggtg gtgaagcata ttttnccatt 300
 tgaaggttcc tttgaggggg gctccgccc ngncttaatt ggcnttccaa ctaaattttt 360
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<210> 679
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610

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<222> (371)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (390)
<223> n equals a,t,g, or c

<400> 679
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tccctggaag ctcttgcatt gcagctctga cagtgcact gatggtgctg aactccccac 120
tggctttggc tggggacacc cgaccacgtt tcttggagca ggtnaaacat gaatgtcatt 180
tcttcaacgg gacggaacgg gtgcggttcc tggacanata cttctatcac caagaagaat 240
acgtgcgctt cgacagcgac gtgggggaat accgggacgt gacgganctg gggcggccta 300
actccgaata ctggaacagc cagaaagacn ccngggacag aagcgggccg cgggtggacac 360
ctactgcaga nacactacgg ggttgggtgn 390

<210> 680
<211> 343
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (2)
<223> n equals a,t,g, or c

<220>
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<222> (3)
<223> n equals a,t,g, or c

<220>
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<222> (8)
<223> n equals a,t,g, or c

<220>
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<222> (11)
<223> n equals a,t,g, or c

<220>
<221> misc feature

<222> (18)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (121)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (122)
<223> n equals a,t,g, or c

<220>
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<222> (132)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (158)
<223> n equals a,t,g, or c

<220>
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<222> (160)
<223> n equals a,t,g, or c

<220>
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<222> (175)
<223> n equals a,t,g, or c

<220>
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<223> n equals a,t,g, or c

<220>
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<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (272)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (278)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (280)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (292)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (331)

<223> n equals a,t,g, or c

<400> 680

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cagattatgc cattgccagg cgcatagtag atttgcattc aagaattgag gaatcaattg 120
nnaatatcta tnccttcgat gatatcagaa gatatctncn ctatgcaaga aagtntaaac 180
ccaagaattc caaagantca gnggacttca ttgtggagca atntaaacat ctccgcccgn 240
aagatggggt ctggagtagc ccagtcttca tngagggntn cagttgcggc cncattgagg 300
gccttggatc cgtctctctt ggaagccaat ngctccgggt gcc 343
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<210> 681

<211> 523

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (17)

<223> n equals a,t,g, or c

<220>

<221> misc feature
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<220>
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<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (72)
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<220>
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<222> (141)
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<220>
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<222> (383)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (442)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (487)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (500)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (503)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (514)
<223> n equals a,t,g, or c

<400> 681
natcttccgt gacactnttg anggnacgcc cgcaggtacc cggtcggaa ttcccgggtc 60

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gacccacgcg tncgcccaat tttaccaatc tatcacccta tagaagagct aatgttagta 120
taagtaacat gaaaacattc ncctccgcat aagcctgcgt cagattaaaa cactgaactg 180
acaattaaca gcccaatatc tacaatcaac caacaagtca ttattaccct cactgtcaac 240
ccaacacagg catgctcata aggaaagggt aaaaaaagta aaagggaactc ggcaaattctt 300
accccgccctg tttacaaaaa acatcacctc tagcatcacc agtattagag gcaccgcctg 360
cccagtgaca catgtttaac ggncgcggta ccctaaccgt gcaaaggtag cataatcact 420
tggtccttaa ttagggacct gnatgaatgg ctccacgagg gtcagctggc tcttactttt 480
aaccagngaa attgacctgn cgngaagagg cggnatgaca cag 523
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<210> 682

<211> 713

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (423)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (583)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (595)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (605)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (626)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (633)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (640)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (646)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (660)
<223> n equals a,t,g, or c

<400> 682
ggtcaaccca acacaggcat gtcataagg aaagggttaa aaaagtaaaa ggaactcggc 60
aaatcttacc cgcctggtt accaaaaaca tcacctctag catcaccagt attagaggca 120
ccgcctgccc agtgacacat gtttaacggc cgcggtaccc taaccgtgca aaggtagcat 180
aatcaactgt tccttaaata gggacctgta tgaatggctc cacgagggtt cagctgtctc 240
ttacttttaa ccagtgaat tgacctgcc gtgaagaggc gggcatgaca cagcaagacg 300
agaagaccct atggagcttt aatttattaa tgcaaacagt acctaacaaa cccacaggtc 360
ctaaactacc aaacctgcat taaaaatttc ggttggggcg acctcggagc agaaccacaac 420
ctncgagcag tacatgctaa gacttcacca gtcaaagcga actactatac tcaattgatc 480
caataacttg accaacggaa caagttaccc tagggataac agcgcaatcc tattctagag 540
tccatatcaa caatagggtt tacgaacctc gatgtttgat cangacattc ccatngtgca 600
gccnctatt taaaagggtc gttggntcac gantaaaggn cctacntgaa ctgagttcan 660
aaccggagta aattccaagg cgggttttta tctaccttaa aattcccccc tgg 713

<210> 683
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (15)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (28)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (73)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (80)
<223> n equals a,t,g, or c

616

<220>
 <221> misc feature
 <222> (225)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (237)
 <223> n equals a,t,g, or c

<220>
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 <222> (240)
 <223> n equals a,t,g, or c

<220>
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 <222> (252)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (287)
 <223> n equals a,t,g, or c

<400> 683
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 agtggatccc ccnggctgcn tgaattcggc acgagcggca cgaggccctg cgggggtgtac 120
 accccccggtt gcggctcggg cctgctctgc taccgcggcc gaggggtgga gaagcccctg 180
 cacacactga tgcacgggca aggcgtgtgc atggagctgg cgganatcga ggccatncan 240
 gaaagcctgc anccctctga caaggacgag ggtgaccacc ccaacanca 289

<210> 684
 <211> 464
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (4)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (353)
 <223> n equals a,t,g, or c

<400> 684
 ggangagccc agccctggga ttttcaggtg gtttcatttg gtgaacagga ctgaacagag 60
 agaactcacc atggaatttg ggctgagctg gctttttctt gtggctattt taaaaggtgt 120

617

```
ccagtgtgag gtgcaattgg tggagtctgg gggaggcttg gtacagcctg ggggggtccct 180
gagactctcc tgtacagtct ctggattcac ctttcgcaac tatgccatga gttgggtccg 240
ccaggggtcca ggggaaggggc tggaatgggt ctcagcaatt gacggtagtg gttataaacac 300
atactacgag aggtccctgc agggccgctt tagtgtctcc agagacaatt ccnagaacac 360
actatatctg caaatgaaca gcctgggagc cgaggacacg gccatctatt attgtgcgaa 420
gacagaacgt atgggtactg gctggtacgg acgaaatgac tact 464
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<210> 685

<211> 545

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (6)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (14)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (16)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (326)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (428)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (438)

<223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (442)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (456)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (457)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (505)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (509)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (536)
 <223> n equals a,t,g, or c

<400> 685
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 aggtaccggt ccggaattcc cgggtcgacc cacgcgtccg gaccgtcacc cctggagaga 120
 cggcctccat ctctgcagg tctagtcaga ccctcctgca tgtcaatgga cacaactatt 180
 tggattggta catgcagaag ccagggcagc ctccacagct cgtgggtctat aggggttcca 240
 atcgggcctc cgggggtccct gacaggttca gtggcggttg atcaggcaca gattttacac 300
 ttagaatcac cacggtggag gctgangatg ttggcggtta ttactgcatg caagctctac 360
 aaagtcgcgt cacttttggc caggggacca agctggagat caaacgaact gtgggctgca 420
 ccatctgnct tcattctncc gncatctgat gaacanntga aatctggaac tgcctctggt 480
 gggggcctgc tgaataactt ctatnccana gaggcccaaa gtaccagtgg aaaggnggga 540
 taacg 545

<210> 686
 <211> 496
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (358)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (417)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (460)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (472)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (481)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (488)

<223> n equals a,t,g, or c

<400> 686

```

ctactaaagg gaacaaaagc tggagctcca ccgcggtggc ggccgctcta gaactagtgg 60
atcccccggg ctgcaggaat tcggcacgag cggctgggcg ctgaggatca gccgcttcct 120
gcctggattc cacagcttcg cgccgtgtac tgctgccccca tccctgcgcg cccagcctgc 180
caagcagcgt gccccggttg caggcgatcat gcagcgggcg cgacccacgc tctggggccgc 240
tgcgctgact ctgctgggtgc tgctccgcgg gccgcgggtg gcgcggggctg gcgcgagctc 300
gggggggcttg ggtcccgttg tgcgctgcga accgtgcgac gcgcgtgcac tggcccantg 360
cgcgcccttc gcccgccgtg tgcgccggaa cttggtgcgc caagccgggc ttgcggntgc 420
tgcttgacgt gcgcactgag cgaagggcca gccgtgcggn atctacaccg ancgctgtgg 480
nttccggnct tcgttg                                     496

```

<210> 687

<211> 476

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (3)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (7)

620

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<400> 687

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gncnganacn aaccctcact aaagggaaca aaagctggag ctccaccgcg gtgcgncgcg 60
tctagaacta gtggatcccc cgggctgcag gaattcggca cgagattgat gacaccaata 120
tcacacgact gcagctggag acagagatcg aggctctcaa ggaggagctg ctcttcatga 180
agaagaacca cgaagaggaa gtaaaaggcc tacaagccca gattgccagc tctgggttga 240
ccgtggaggt agatgcccc aaatctcagg acctcgccaa gatcatggca gacatccggg 300
cccaatatga cgagctggct cggaagaacc gagaggagct agacaagtac tgggtctcagc 360
agattgagga gagcaccaca gtggtcacca cacagtctgc tgaggttgga gctgctgaga 420
cgacgctcac agagctgaga cgtacagtcc agtccttgga gatcgacctg ggactt 476
```

<210> 688

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (4)

<223> n equals a,t,g, or c

<400> 688

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aactagtgga tcccccgggc tgcaggaatt cggcacgagc aggttcccgc ccggaagaag 120
cgaccaaagc gcctgaggac cggcaacatg gtgcggtcgg ggaataaggc agctgttgtg 180
ctgtgtatgg acgtgggctt taccatgagt aactccattc ctggtataga atccccattt 240
gaacaagcaa agaaggtgat aaccatgttt gtacagcgac aggtgtttgc tgagaacaag 300
gatgagattg ctttagtcct gtttggtaca gatggcactg acaatcccct ttctgggtgg 360
gatcagtatc agaacatcac agtgcacaga catctgatgc taccagattt tgatttgctg 420
gaggacattg aaaagcaaaa tccaaccagg ttctcaacag gctgacttcc tgggatgcac 480
taa 483
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<210> 689

<211> 339

<212> DNA

621

<213> Homo sapiens

<220>

<221> misc feature

<222> (109)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (135)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (155)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (236)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (260)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (280)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (289)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (337)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (338)

<223> n equals a,t,g, or c

<400> 689

aggcaggagg aagccgatcg aaaactcaga gaggaggaag agaagaggag gctaaaggaa 60
gagattgaaa ggcgaggagc agaagctgct gagaaacgcc agaagatgnc agaagatggc 120
ttgtcagatg acagnaaacc attcaagtgt ttcantccta aaaggttcat ctcttcaaga 180

622

```

tagaagagcg agcagatttt tgattaagtc tgtgcagaaa agcagtgggtg ttcaantcga 240
cccttcaagc agcattagtn ttccaagttt gacagcagan tggagcatnt taccatggca 300
tttgagggga ccaaaagcag ccaaaacctt aaaaaanna 339

```

```

<210> 690
<211> 594
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc feature
<222> (2)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (473)
<223> n equals a,t,g, or c

```

```

<400> 690
gntgcttttct ccaccagaag ggcacacttt catctaattt ggggtatcac tgagctgaag 60
acaaagagaa gggggagaaa acctagcaga ccaccatgtg ctatgggaag tgtgcacgat 120
gcatcggaca ttctctgggtg gggctcgccc tcctgtgcat cgcggttaat attttgcttt 180
actttcccaa tggggaaaca aagtatgcct ccgaaaacca cctcagccgc ttcgtgtgggt 240
tcctttcttg catcgtagga ggtggcctgc tgatgctcct gccagcattt gtcttcattg 300
ggctggaaca ggatgactgc tgtggctgct gtggccatga aaactgtggc aaacgatgtg 360
cgatgctttc ttctgtattg gctgctctca ttggaattgc aggatctggc tactgtgtca 420
ttgtggcagc ccttggctta gcagaaggac cactatgtct tgattccctc ggncagtggg 480
actacacctt tgccagcacc gagggccaag taccttctgg ataccttcac atgggtccgag 540
tgcaactgaac ccaacacatt ggggaatgga atggatctct ggtttctatc ctct 594

```

```

<210> 691
<211> 538
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc feature
<222> (3)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c

```

```

<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c

```

623

<220>

<221> misc feature

<222> (55)

<223> n equals a,t,g, or c

<400> 691

```
ganganacna accctcacta aagggaacaa aagctggagc tccaccgcg tgcgnccgct 60
ctagaactag tggatcccc gggctgcagg aattcggcac gagcgcatga ctttgtcttc 120
tccgcacgac tgttacagag gtctccagag cttctctct cctgtgcaaa atggcaactc 180
ttaaggaaaa actcattgca ccagttgcgg aagaagaggc aacagttcca aacaataaga 240
tcactgtagt ggggtgttgga caagttggta tggcgtgtgc tatcagcatt ctgggaaagt 300
ctctggctga tgaacttgct cttgtggatg ttttgggaaga taagcttaaa ggagaaatga 360
tggatctgca gcatgggagc ttatttcttc agacacctaa aattttggca gataaagatt 420
attctgtgac cgccaattct aagattgtag tggtaactgc aggagtccgt cagcaagaag 480
gggagagtcg gctcaatctg gtgcagagaa atgttaatgt cttcaaattc attattcc 538
```

<210> 692

<211> 201

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (125)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (143)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (161)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (165)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (183)

<223> n equals a,t,g, or c

<400> 692

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gtcattgcc acgcgcccc gacgaccgcc cgacgtgcat tcccgattcc ttttggttcc 60
aagtccaata tggcaactct aaaggatcag ctgatttata atcttctaaa ggaagaacag 120
accnccaga ataagattac agntgttggg gttggtgctg ntggnatggc ctgtgccatc 180
aanatcttaa tgaaggactt g                                     201
```

<210> 693
<211> 589
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (2)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (23)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (271)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (312)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (342)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (354)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (377)
<223> n equals a,t,g, or c

<220>
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 caaatttcac aaataaagca tttttttcac tgcattctag ttgtggtttg tccaaactca 180
 tcaatgtatc ttatcatgtc tggatcgatc ctgcattaat gaacggccaa cgcgcgggga 240
 gaggcggttt gcgtattggc tggcgtaata ncgaaaagcc cgcaccgatc gcccttccca 300
 acagttgcgc ancctgaatg gcgaatggga cgcgccctgt ancggcgcat taancgcggc 360
 ggggtgtggtg gttaccncaa cgtgaccgct acacttgcca ncgccctaac gcccgctcct 420
 ttncctttct tccccnccct ttctcccca cgttcgcgcg ggtttncccc gtcaaaactct 480
 aaatccgggg ntccccctta agggttccca atttaattgc ttaacggcac ctccaacccc 540
 aaaaaaactt naataagggg tgaatggttc nntanttggt gccaccccc 589

<210> 694
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<212> DNA
<213> Homo sapiens

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aggaaagccg aggangaaga actggcaang cccccaaggg agcaaggga gangagcagc 180
tgggcactgc ccgggccaac ananaagcag cccctccggg ttcgtcacgg acacctggct 240
tggangccggg accatccctg acaagggtga ctctcaagct ggccagggtca cgaccagtgt 300
cactcatgca cctgcctggg tcacangga atgccacaan cccacccaat gcctgaacag 360
ggaattgcnn aaaattccgg aaaaaa 386

<210> 695
<211> 475
<212> DNA
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 aagcagtgtc aagacagtaa ggattcaaac catttgccaa aaatgagtct aagtgcattt 120
 actctcttcc tggcattgat tgggtggtacc agtggccagt actatgatta tgattttccc 180
 ctatcaattt atgggcaatc atcaccaaac tgtgcaccag aatgtaactg ncctgaaagc 240
 tacccaagtg ccatgtactg tgatgagctg aaattganaa gtgtaccaat ggtgcctcct 300
 ggaatcaagt atctttacct taggaataac cagattgacc atattgatga aaaggccttt 360
 gagaatgtaa ctgatctgca gtggctcatt ctagatcaca accttctaga aaactccaag 420
 atnaaaggga gagttttctc taaattgaaa caactgaana agntnntata accac 475

<210> 696
 <211> 444
 <212> DNA
 <213> Homo sapiens

<220>
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<220>
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 ggaaatgaaa cttctctttg ggactgcaag aactggcaat ggggtggact tacctgtgat 120
 cactatgaag aagccaaaat tacctgctca gccacaggg aaccagact ggttgagggt 180
 gacattccct gttctggacg tggtgaagtg aagcatgggt acacgtgggg ctccatctgt 240
 gattcagact tctctctgga agctgccagc gttctatgca gggaattaca gtgtggcaca 300
 gttgtctcta tcctgggggg agctcaactt ggagagggaa tggacagatc tgggctgaag 360
 aattccagtg ttgagggaca tgaatcccca tctttcatct tnccagtagn aaccccgccc 420
 aaaaggaact ttagaccaca gcaa 444

<210> 697
 <211> 411
 <212> DNA

<213> Homo sapiens

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<222> (104)

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<221> misc feature

<222> (305)

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<222> (338)

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<222> (370)

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<222> (375)

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<400> 697

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ccagacgaca gggaagaagg agctgcctct acggctgagg aaanagccaa gaaaaaaga 120
cgaaagaaga agaagagcaa agggccttct gcaggtaaag agagttttat gttttcccag 180
tcccctccgg gaacggctga actgtttggc tcaggcccggt tgagggggcc gggaccgggg 240
ccccagagcc ccgactagac tgattcttgg gcctgacagg gtggcaaagc cgggctatag 300
atcanggtgc acctgagctt tctctgatgt atgcccangc agatctccag gtattcagag 360
cacctgcttn cccancctgt tagtcttagt nacccaaccc tcctgtgcan a 411

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<210> 698

<211> 135

<212> DNA

<213> Homo sapiens

630

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tgcgtgtgat taggg 135

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<211> 434
<212> DNA
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631

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 ttggggattt cattatatgc agagcagcct gcaaaaggag aggtgtggag cgaagatgtc 180
 cgaaaactgg ctgttgttca tgaatctgaa ggattgttgg ggtacattta ctgtgatttt 240
 tttcagcgag cagacaaacc acatcaggat tgccatttca ctatccgtgg aggcagacta 300
 aaaggaagat gggagactat ncaactccca gttgtaagtt cttatgctgg aatcttcccc 360
 gttcccgnna gggagttctc caactttggc naangcctgg gcatgatggg aaaacctttc 420
 ccagganggg ggac 434

<210> 700
 <211> 435

632

<212> DNA
<213> Homo sapiens

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gtaaaatttg gtgcagatgc ccgagcctta atgcttcaag gtgtagacct tttagccgat 180
gctgtggccg ttacaatggg gccaaaggga agaacagtga ttattgagca gagttgggga 240
agtcccaaag taacaaaaga tgggtgtgact gttgcaaagt caattgactt aaaagataaa 300
tacaagaaca ttggagctaa acttgttcaa gatgttgcca ataacacaaa tgaagaagct 360
ggggatggca ctaccactgc tactgtactg gcacgctcta tagccaagga aggcttcgag 420
aagattagca aaggt 435

<210> 701
<211> 406
<212> DNA
<213> Homo sapiens

<400> 701
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tcccaaagta acaaaagatg gtgtgactgt tgcaaagtca attgacttaa aagataaata 180
caagaacatt ggagctaaac ttgttcaaga tgttgccaat aacacaaatg aagaagctgg 240
ggatggcact accactgcta ctgtactggc acgctctata gccaaaggaag gcttcgagaa 300
gattagcaaa ggtgctaata cagtggaaat caggagaggt gtgatgttag ctgttgatgc 360
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<210> 702
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<212> DNA
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633

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gcaggggtcca agcgggtttt cttctggatg caggaacca agacagacca ggatgaggag 120
cattgccgga aagtcaacga gttatctgga acaaccccc gatgcctggg gcaactggggg 180
ccagcgggaac agcggccacg aantctctgc gctangcggg tgagggtggcn tgcagagcnt 240
gctggggaaa cntgagccac agccag 266

<210> 703
<211> 244
<212> DNA
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ataaaaatgac agtttgaaca tacaaaaccc accccattcc tccccacact catcgccctt 120

634

accacgctac tcctacctat ctccccctttt atactaataa tcttataaaa aaaaaaaaaa 180
aaaaaaaaaa aaangggggg gccgggnncc nattingccc aaaggggggg gggttttaaaa 240
ttca 244

<210> 704
<211> 462
<212> DNA
<213> Homo sapiens

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gcccacctgg tccggcgcta cctgggcat gcctcgggtg ancccgaccc cctgcagatg 120
ccaaccttc cgccagacta cgcttcccc gaacgcaagg ancgcanat ggtggccaca 180

637

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cancangana tgatggacgc gcactnaagc tccanctgcg ggantactgc gcccaccaac 240
tcatccgggt gctcaattnc aaccttaaan cttccccccac ttccttggct tgcnaaccag 300
gaacgggaca aatnggaata ntnccaaaca ccccanaant tttnttnccc ttaaanantt 360
tttaaacgga aacgaagggt ntcccccccg gaaaaaaaaac nggggnaaaa aaaggggaaa 420
ttttttnccc cccccccgcc cgnggaaatt ttcccccccg tt 462
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<210> 705

<211> 436

<212> DNA

<213> Homo sapiens

<400> 705

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caaataccga tactttgctt gtttgatgag agcccgggtt gaagaacata agaatgaaaa 180
ggatatggcg aaggccaccc agctgctgaa ggaggccgag gaagaattct ggtaccgtca 240
gcatccacag ccatacatct tccctgactc tcctgggggc acctcctatg agagatacga 300
ttgctacaag gtcccagaat ggtgcttaga tgactggcat ccttctgaga aggcaatgta 360
tcctgattac ttgccaaga gagaacagtg gaagaaactg cgggagggaa agctgggaac 420
gagaggttaa gcagct 436
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<210> 706

<211> 487

<212> DNA

<213> Homo sapiens

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640

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agngcctgcg tncgtgagaa ttcagcatgg aatgactcta ctatttinctg ggatttctgn 120
tntctgntgn aagattgccca cttgatgccg ccaaacgatt ncatgatgag ctgggnaatg 180
aaagaccttn tgcttacatg anggagcaca atcaattaaa tggctggtnt tctgatgaaa 240
atgactggaa tgaaaaactc taccacagtgt ggaagcggng agacatgang tngaaaaaac 300
tgctggaagg gagggccgtg tgcaaggcgg tcctgaccag ngactnacca acccttgng 360
ggctcaaata naacattngc cggngaacct gatattccct aaangccaaa aggaagaagc 420
caatggcaac ataggctatg anaagaactg ganaaatgaa gctgggntaa acagctgaac 480
canaagg 487

<210> 707
<211> 414
<212> DNA
<213> Homo sapiens

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641

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 <222> (368)
 <223> n equals a,t,g, or c

<220>
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<220>
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 <222> (408)
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<400> 707
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 tatctttttcg gttgtgaact aaaggccgac aaagattatc actttaaggt ggataatnat 180
 gaaaatgagc accagttatc tttaagaacg gtcngtttng gggctgggtgc aaaggatgag 240
 ttgcacattg ttgaagcaga ggcaatgaat tacgaaggca gtccaattaa agtaacactg 300
 gcaactttga aaatgtctgt acagccaacg gttttccctt tgggggcttt gaataacacc 360
 accangncc ttaagggtga antgtggttc agggccatgc cnattagngg acag 414

<210> 708
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (287)
 <223> n equals a,t,g, or c

<220>
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 <222> (335)
 <223> n equals a,t,g, or c

<220>
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<222> (343)
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<220>
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<222> (352)
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<220>
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<222> (355)
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gctttctttt taatcccctg catcggatca ccggcgtgcc ccaccatgtc agacgcagcc 180
gtagacacca gctccgaaat caccaccaag gacttaaagg agaagaagga agttgtggaa 240
gaggcagaaa tggaagagac gccctgctaa cgggatgcta atgaggnaat ggggagcagg 300
aggtgacatg aggtagccga gaagaggaag aagtngggag aanagagaga anaanaagtt 360

<210> 709
<211> 253
<212> DNA
<213> Homo sapiens

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<222> (17)
<223> n equals a,t,g, or c

<220>
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<222> (30)
<223> n equals a,t,g, or c

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<220>
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643

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<220>
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<222> (110)
<223> n equals a,t,g, or c

<220>
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<222> (138)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (183)
<223> n equals a,t,g, or c

<220>
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<222> (189)
<223> n equals a,t,g, or c

<220>
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<222> (199)
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<223> n equals a,t,g, or c

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gtcgacccac gngtccgctn cggtggtgaa caagtctcca gcaccatn tggtttgtct 120
ggccccacat cccggcgngg accttttccg ttagcgtggg tgatattgtt cctgctcgag 180
gcncaaatng gtccttggn tctccttcca tctgcccatt aactctcgca agtgcctccg 240
ngaggaaatt cnc 253

<210> 710
<211> 496
<212> DNA
<213> Homo sapiens

<220>

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<222> (220)
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<222> (312)
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<220>
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<222> (357)
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<220>
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<222> (376)
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<220>
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<220>
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<222> (420)
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<220>
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<222> (469)
<223> n equals a,t,g, or c

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<222> (476)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (483)

<223> n equals a,t,g, or c

<400> 710

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caatgatgct ttttaagggaa tgactagtga agaaaaagaa attctgatac gggacaaaaa 120
tgctcttcaa aacatcattc tttatcacct acaccaggag ttttcattgg aaaaggattt 180
gaacctggtg ttactaacat ttttaaagac cacacaaggn agcaaaatct ttctggaagg 240
aagtgaatg gttacacttc tggatgaatg atttggaat ccaaaagant ctgacatcca 300
tgggccacca anggtggtaa tttcatgttg taggttaaac tncncttttc cagcagnac 360
accttttggg natgntcaa ctggtnggga tacttgatta ttnatncaa tnnctcccn 420
atttaaggtt ttttcgggg tgggccctt caagggaatn ccngggctnt ttttnacac 480
ctnaattttt tcccc
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<210> 711

<211> 461

<212> DNA

<213> Homo sapiens

<220>

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<222> (1)

<223> n equals a,t,g, or c

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<222> (3)

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<220>

<221> misc feature

<222> (37)

<223> n equals a,t,g, or c

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<221> misc feature

<222> (63)

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<222> (221)

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<222> (337)

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<222> (364)

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<400> 711

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ttccccgggc tgcaggaatt cggcacgagg tcgcagacac tatgctgcct cccatggccc 120
tgcccagtgt atcttggatg ctgctttcct gcctcatgct gctgtctcag gttcaagggtg 180
aagaacccca gagggaaactg ccctctgcac ggatccgctg ncccaaaggc tccaaggcct 240
atggctccca ctgctatgcc ttgtttttgt caccaaaatc ctggacagat gcagatctgg 300
cctgccagaa gcgggccctct ggaaacctgg tgtctgngct cagtggggct gagggatcct 360
tcgngcctcc ctggtgaaga gcattggtaa cagctactca tacgtctgga ttgggctcca 420
tgaccccaca cagggcaccg agcccaatgg ataaagggtg g 461
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<210> 712

<211> 392

<212> DNA

<213> Homo sapiens

<220>

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<222> (326)

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<220>

<221> misc feature

<222> (359)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (368)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (376)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (389)

<223> n equals a,t,g, or c

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cgtggcgcac ctggcgcggg cgaacctctt caacacgcca catctgcagc tgggtgcacga 120
tggtctcggg gacctccgca gcagctcccc agggcccacg ggccagcccc gccgccctcg 180
caacctggca gccgccgccg tggaagagca gtatagctgt gactatggat ctggcagatt 240
ctttatcctt tgtggacttg gaggaattat tagctgtggc acaacacata cagcattggt 300
tcctctagat ctggttaaata gcagangcag gtttgttttt gcatgctgga cttagagcna 360
ttgaagcntg actgangtta agtattagna ta 392

<210> 713

<211> 734

<212> DNA

<213> Homo sapiens

<220>

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<222> (235)

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<222> (256)

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<222> (373)

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<222> (601)

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<222> (642)

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<220>

649

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 <222> (690)
 <223> n equals a,t,g, or c

<220>
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 <222> (703)
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 aggatcacca gataccaggg tgtaatactt tatgtgaaaa atcttgatga tggattgat 120
 gatgaacgtc tccgaaaaga gttttctcca tttggtacaa tcactagtgc aaaggttatg 180
 atggagggtg gtcgcagcaa agggtttggt tttgtatggt tctcctcccc agaanaagcc 240
 actaaagcag ttacanaaat gaacggtaga attgtggcca caaagccatt gtatgtagct 300
 ttagctcagc gcaaagaaga gcgccaggct cacctcacta accagtatat gcagagaatg 360
 gcaagtgtac gancgtgtcc caaccctgta atcaaccctt accagccagc acctccttca 420
 ggttacttca tggcagctat cccacagact cagaacgtgc tgcatactat cctcctagcc 480
 aaattgctca actaanacca agtcctcgct ggactgctca gggtgccata actcatccat 540
 tccaaaatat gcccggtgct atccgcccag ctgtctctan aacaccattt agtactatga 600
 naacagcttc ttctcagcaa catcttaatg cacagccaca anttacaatg cacancctgc 660
 tgttcatggt caaggtcagg aacctttgan tgcttccatg ttngcatctg ccccccccca 720
 aaacaaaacc aatt 734

<210> 714
 <211> 500
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (5)
 <223> n equals a,t,g, or c

<220>
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 <222> (6)
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<220>
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650

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<220>
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<222> (22)
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<220>
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<222> (26)
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<222> (33)
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<222> (36)
<223> n equals a,t,g, or c

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<222> (38)
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<222> (449)
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<220>
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<222> (470)
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tctagcaact agtggatccc ccgggcctgt caggaattcg gcacgagctg ggacaagcga 120
gttttttaaac aaagtgactg aggcacagga agatggccag tcaacttctg aattgattgg 180
ccagtttggt gtcggtttct attccgcctt ccttgtagca gataaggtta ttgtcacttc 240
aaaacacaaac aacgataccc agcacatctg ggagtctgac tccaatgaat tttctgtaat 300
tgctgaccga agaggaaaca ctctaggacg gggaacgaca attacccttg tcttaaaaga 360
agaagcatct gattaccttg aattggatac aattaaaaat ctcgtaaaa aatattcaca 420

gttcataaac tttcctatatt atgtatggng cagcaagact gaaactgttn aggagcccat 480
ggaggaagaa ggagcagcca 500

<210> 715

<211> 491

<212> DNA

<213> Homo sapiens

<220>

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<222> (2)

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<222> (58)

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<220>

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<222> (62)

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<220>

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<222> (65)

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<222> (248)

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<220>

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<222> (250)

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<222> (271)

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<220>

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<222> (278)

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<222> (285)

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<222> (293)

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<222> (310)

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<220>

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<222> (314)

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<220>

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<222> (319)

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<222> (321)

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<222> (326)

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<220>

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<222> (339)

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 <223> n equals a,t,g, or c

<220>
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 <222> (474)
 <223> n equals a,t,g, or c

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 anaantacaa caagtgggaa acgatagagg cttggactca acaagtcgcc actganaatc 120
 cagccctcat ctctgcagct gttatcgga ccacatttga gggacgcgct atttacctcc 180
 tgaaggttgg caaagctgga caaaataagc ctgccatttt catggactgt gggtttccca 240
 tgccaganan ttggatttct ccctgcattc ngccagtnng tttntaaaa aangcgggtc 300
 ccttcctatn gacntttana ncccanttga caaacttcnc caacaattta aanttttatn 360
 ttcccgccct gtggcccca tattgaagg caacttcnac cccgggaacn aaaacccaat 420
 tntggaaaaa aaaaccccc cccccctgg tgggattctt gctttggttg ggnnccaccc 480
 caaaaaaatt t 491

<210> 716
 <211> 331
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (242)
 <223> n equals a,t,g, or c

654

<220>
<221> misc feature
<222> (303)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (321)
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<220>
<221> misc feature
<222> (322)
<223> n equals a,t,g, or c

<220>
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gctacccgggt gtgcggcagc gacggcacca cctacccgag cggctgccag ctgcgcgccg 120
ccagccagag gcccgagagc cgcggggaga aggccatcac ccaggtcagc aagggcacct 180
gcgagcaagg tccttccata gtgacgcccc ccaaggacat ctggaatgtc actggtgccc 240
angtgtactt gagctgtgag gtcacgga tcccgcacac tgccctcatc tggaacaagg 300
tanaaagggg tcactatgga nntcanagga c 331

<210> 717
<211> 486
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c

<220>
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<220>
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655

<222> (38)
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 <222> (99)
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<220>
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 <222> (107)
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 ctagtggnct ccccggnct gcaggaattc ggcacgagna tattagnacg cggttattcg 120
 gtgagcgggtg gtgggtttatt cttccgtgga gttaagggtc cgtggacat ctcagggtctt 180
 cagggtcttc catctggaac tatataaagt tcagaaaaca tgtctcgaga tatgactcca 240
 ggaccactat attttctcca gaaggctcgt tataccaagt tgaatatgcc atggaagcta 300
 ttggacatgc aggcacctgt ttgggaattt tagcaaata tgggtgtttg cttgcagcag 360
 agagacgcaa catccacaag cttcttgatg aagtcctttt ttctgaaaaa atttataaac 420
 tcaatgagga catggcttgc agtgtggcag gcataacttt ctgatgctaa tgttctgact 480
 aatgac 486

<210> 718
 <211> 479
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (436)
 <223> n equals a,t,g, or c

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656

accctcaact cagatggata cacccttgag ccagacaaac cgcgccgat gcccatggac 120
acgagcgtgt atgagagccc ctacagcgac ccagaggagc tcaaggacaa gaagctcttc 180
ctgaagcgcg ataacctcct catagctgac attgaacttg gctgcggcaa ctttggtca 240
gtgcgccagg gcgtgtaccg catgcgcaag aagcagatcg acgtggccat caagggtgctg 300
aagcagggca cggagaaggc agacacggaa gagatgatgc gcgaggcgca gatcatgcac 360
cagctggaca acccctacat cgtgcggctc attggcgtct gccaggccga agccctcatg 420
ctgggtcatgg agatgntggg ggcgggcgct gcacaagttc ctggtcggca agaaggaag 479

<210> 719

<211> 572

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (418)

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<220>

<221> misc feature

<222> (421)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (501)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (503)

<223> n equals a,t,g, or c

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<221> misc feature

<222> (526)

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<222> (546)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (559)

<223> n equals a,t,g, or c

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gatgattgtc atagaactgg gcaccaatcc gctgaagagc tcaggaattg aaaatggggc 120

657

tttccaggga atgaagaagc tctcctacat ccgcattgct gataccaata tcaccagcat 180
tcctcaaggt cttcctcctt cccttacgga attacatctt gatggcaaca aaatcagcag 240
agttagtgca gctagcctga aaggactgaa taatttggct aagttgggat tgagtttcaa 300
cagcatctct gctgttgaca atggctctct ggccaacacg cctcatctga gggagcttca 360
cttggacaac aacaagctta ccagagtacc tgggtgggctg cagagcataa agtacatnca 420
nggtggctac cttcataaca accatatctc tgtagttgga tcaaagtgac ttctggccac 480
ctggacacaa ccacccaaaa ngnttcttaa ttccgggtgg gaagcntttt aacaaacccg 540
ggccangact ggggagaana cagccatcca cc 572

<210> 720

<211> 487

<212> DNA

<213> Homo sapiens

<220>

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<222> (3)

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<220>

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<222> (376)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (447)

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<220>

<221> misc feature

<222> (459)

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<220>

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<222> (460)

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<220>

<221> misc feature

<222> (467)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (468)

<223> n equals a,t,g, or c

<400> 720

ggntaaatca gaactcgaat ggccttggtt tcttgctctg gggctcttat gctcagaaga 60

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agggcagtgc cattgatagg aagcggcacc atgtactaca gacggctcat ccctcccctt 120
tgtcagtgtg tagaggggttc tttggatgta gacacttttc aaagaccaat gagctgctgc 180
agaagtctgg caagaagccc attgactgga aggagctgtg atcatcagct gaggggtggc 240
ctttgagaag ctgctgttaa cgtatttgcc agttacgaag ttccactgaa aattttccta 300
ttaattctta agtactctgc ataaggggga aaagcttcca gaaagcagcc atgaaccagg 360
ctgtccagga atggancctg tatccaacca caaacaacaa aggctaccct ttgacccaaa 420
tgtctttctc tgcaacatgg cttcggcnct aaatatgcnn aagacannat gagggccaat 480
acttaat 487
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<210> 721

<211> 464

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (222)

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<220>

<221> misc feature

<222> (312)

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<220>

<221> misc feature

<222> (347)

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<220>

<221> misc feature

<222> (349)

<223> n equals a,t,g, or c

<220>

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<222> (364)

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<220>

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<222> (415)

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<220>

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<222> (436)

<223> n equals a,t,g, or c

<220>

<221> misc feature

659

<222> (443)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (448)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (455)
<223> n equals a,t,g, or c

<400> 721
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tcctggggttg tgaggagtcg ccgctgccgc cactgcctgt gcttcatgag gaagatgctc 120
gccgcgcgtct cccgcgtgct gtctggcgct tctcagaagc cggcaagcag agtgctggta 180
gcatcccgtta attttgcaaa tgatgctaca tttgaaatta anaaatgtga ccttcaccgg 240
ctggaagaag ccctcctgtc acaacagtgc tcaccaaggg aagatgggct caaatactac 300
aggatgatgc anactgtacc cgaatggaat tgaaacagat cactgtntna acagaaaatt 360
atcntggttt ctgtccttgt gtgatgtcag aacttgctgt gtggcctgga gccgnatcac 420
cccaaact ctccanctac ggntccgntt atttnccggg cttc 464

<210> 722
<211> 320
<212> DNA
<213> Homo sapiens

<220>
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<222> (12)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (113)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (142)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (152)

660

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (153)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (182)

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<220>

<221> misc feature

<222> (211)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (263)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (275)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (281)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (299)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (308)

<223> n equals a,t,g, or c

<400> 722

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agtcgggtcag cgccggatga cctcagcagc catgtcgaaag ccccatagtg aanccgggac 120
tgcttctcatt cagacccagc anctgcacgc anncatggct gacacattcc tggagcacat 180
gngccgcctg gacattgatt caccacccat nacaggccgg aacactggca tcatctgtac 240
cattggccca gcttcccgat cangtggaga cggtnaagga natgattaaa gcctggaang 300
aatgtggntc gtctgaactt                                     320
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<210> 723

661

<211> 152
<212> DNA
<213> Homo sapiens

<220>
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<222> (79)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (87)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (111)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (127)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (148)
<223> n equals a,t,g, or c

<400> 723
gccaccatg gctgcaatcc gaaagaagct ggtgatcggtt ggggatgggtg cctgtgggaa 60
gacctgcctc ctcacgtnt tcagcangga tcagtttccg gaggtctacg nccctactgt 120
cctttgngaa ctatattgcg cacattgnng cg 152

<210> 724
<211> 573
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (463)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (514)
<223> n equals a,t,g, or c

<220>
<221> misc feature

662

<222> (553)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (559)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (569)
 <223> n equals a,t,g, or c

<400> 724
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 aaaattgcat ctgatggctc caagggctcg gtgtttgaag tgagtcttgc tgatttgag 120
 aatgatgaag ttgcatttag aaaattcaag ctgattactg aagatgttca gggtaaaaac 180
 tgcctgacta acttccatgg catggatctt acccgtgaca aaatgtgttc catggtcaaa 240
 aaatggcaga caatgattga agctcacgtt gatgtcaaga ctaccgatgg ttacttgctt 300
 cgtctgttct gtgttggttt tactaaaaaa cgcaacaatc agatacggaa gacctcttat 360
 gctcagcacc aacagggtccg ccaaattccgg aagaagatga tggaaatcat gacccgagag 420
 gtgcagacaa atgacttgaa agaagtggtc aataaattga ttncagacgc attggaaaag 480
 acatagaaaa ggcttggaac tctattatcc tctncatgat ggcttcgtta gaaaagtaaa 540
 aatgctgaag aanccaagnt tgaatgggna aac 573

<210> 725
 <211> 403
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (9)
 <223> n equals a,t,g, or c

<400> 725
 gcttgaaant aaccctcact aaagggaaca aaagctggag ctccaccgcg gtgcggccgc 60
 tctagaacta gtggatcccc cgggctgcag gaattcggca cgagtcctgg tccgcgccag 120
 agcccagcgc gcctcgtcgc catgcctcgg aaaattgagg aaatcaagga cttcctgctc 180
 acagcccagc gaaaggatgc caaatctgtc aagatcaaga aaaataagga caacgtgaag 240
 tttaaagtgc gatgcagcag atacctttac accctgggtc tctactgacaa agagaaggca 300
 gagaaactga agcagtcctt gccccccggt ttggcagtga aggaactgaa atgaaccaga 360
 cacactgatt ggaactgtat tatattaaaa tactaaaaat cct 403

<210> 726
 <211> 502
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature

<222> (7)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (12)
<223> n equals a,t,g, or c

<220>
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<222> (256)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (281)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (380)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (391)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (428)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (456)
<223> n equals a,t,g, or c

<400> 726
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gccgctctag aactagtggg tcccccgggc tgcaggaatt cggcacgaga gccatcaggt 120
aagccaagat ggggtgcatac aagtacatcc aggagctatg gagaaagaag cagtctgatg 180
tcatgcgctt tcttctgagg gtccgctgct ggcagtagcg ccagctctct gctctccaca 240
gggctccccg ccccanccgg cctgataaag cgcgcccact nggctacaag gccaagcaag 300
gttacgttat atataggatt cgtgttcgac gtggtggccg aaaacgcca gttcctaagg 360
gtgcaattac ggcaagcctn tccatcatgg ngttaaccag cttaaagttg ctcgaagcct 420

664

tcagtcenntt gcagaggagc gagctggacg ccactntggg gctctgagag tcctgaattc 480
ttactggggtt ggtgaagatt cc 502

<210> 727
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (17)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (309)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (318)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (360)
<223> n equals a,t,g, or c

<400> 727
ggcacgagcg aacgcgnaga gcacgccatg aaggcctcgg gcacgctacg agagtacaag 60
gtagtgggtc gctgcctgcc ccccccaaa tgccacacgc cgccctcta ccgcatgcga 120
atctttgcgc ctaatcatgt cgtcgccaag tcccgcttct ggtactttgt atctcagtta 180
aagaagatga agaagtcttc aggggagatt gtctactgtg ggcaggtgtt tgagaagtcc 240
cccctgcggg tgaagaactt cgggatctgg ctgcgctatg actcccggag cggcacccac 300
aacatgtanc ggggaatancg ggacctgacc aacgcaggcg ctgtcaacca gtgtaacggn 360
g 361

<210> 728
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (6)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (200)
<223> n equals a,t,g, or c

665

<220>
<221> misc feature
<222> (234)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (251)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (319)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (332)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (334)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (360)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (389)
<223> n equals a,t,g, or c

<400> 728
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gagaccaatg aaatcgccaa tgccaactcc cgtcagcaga tccggaagct catcaaagat 120
gggctgatca tccgcaagcc tgtgacgggc cattcccggg ctcgatgccg gaaaaacacc 180
ttggcccgcc ggaaaggcan gcacatgggc atagttagcg gaaagggtaca gccnatgccc 240
gaatgccaaa naagggtcaca tggattaaga aaatgaagat tttgcgcccg ctgctcaaaa 300
aatacgtgaa tcttaaaaana tcgatcgcca cntntttcac agcctgttcc taaagttaan 360
ggaatttttt caaaaacaac cgattctcnt ggaacacttc c 401

<210> 729
<211> 530
<212> DNA
<213> Homo sapiens

<220>

666

<221> misc feature
 <222> (7)
 <223> n equals a,t,g, or c

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 <222> (10)
 <223> n equals a,t,g, or c

<220>
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 <222> (12)
 <223> n equals a,t,g, or c

<220>
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 <222> (14)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (60)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (527)
 <223> n equals a,t,g, or c

<400> 729
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 ccgctctaga actagtggat cccccgggct gcaggaattc ggacagagcc gccatcttcc 120
 agtaattcgc caaaatgacg aacacaaagg gaaagaggag aggcacccga tatatgttct 180
 ctaggccttt tagaaaacat ggagttgttc ctttggccac atatatgcga atctataaga 240
 aaggtgatat tgtagacatc aagggaatgg gtactgttca aaaaggaatg cccacaagt 300
 gttaccatgg caaaactgga agagtctaca atgttaccga gcatgctgtt ggcattgttg 360
 taaacaaaca agttaagggc aagattcttg ccaagagaat taatgtgcgt attgagcaca 420
 ttaagcactc taagagccga gatagcttcc tgaaacgtgt gaaggaaaat gatcagaaaa 480
 agaaagaagc caaagagaaa ggtacctggg ttcaactaaa gcgccancct 530

<210> 730
 <211> 375
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (33)
 <223> n equals a,t,g, or c

<220>

<221> misc feature
<222> (55)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (87)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (97)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (111)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (121)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (124)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (125)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (142)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (181)
<223> n equals a,t,g, or c

<220>
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<222> (183)
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<220>
<221> misc feature

<222> (190)
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<222> (198)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (206)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (229)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (241)
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<220>
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<222> (248)
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<220>
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<222> (262)
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<220>
<221> misc feature
<222> (269)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (284)
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<220>
<221> misc feature
<222> (322)
<223> n equals a,t,g, or c

<220>
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<222> (333)

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<220>

<221> misc feature

<222> (354)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (367)

<223> n equals a,t,g, or c

<400> 730

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gggtggttgc tgccgaaatg ggcaagttca tгнаaccaag aaagtgggtgc ttgtnctggc 60
tggacgctac tccggacgca aagctgntca tcgtaanaga acattgaatg ntggcacctc 120
naanngccccc tacagccatg cncgtggtggc tgggaattga accgctaccc ccgcaaatga 180
ncngctgccn tgggggcanga agaagntcgc caggagggtca aagatatant cttttgtgaa 240
ngtgtgtnac tacaatcacc tnatgcccnc aaggtactct gtgngatatt ccccttgggg 300
caaagctgta cgttcattag gntgtcttcc ganattcctg gctcttaaac gctnggcccg 360
aaggagnccc aggtc 375
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<210> 731

<211> 207

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (143)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (177)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (187)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (201)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (207)

<223> n equals a,t,g, or c

670

<400> 731

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gcgccgctgc gaagggagcc gccgccatgt ctgcgcatct gcaatggatg gtcgtgcgga 60
actgctccag ttctctgata aagaggaata agcagacctc cagcactgag cccaataact 120
tgaaggcccg caattccttc cgntacaacg gactgattca ccgcaagact gtgggcntgg 180
agccggnagc cgacggcaaa nggtgtcn 207
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<210> 732

<211> 702

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (620)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (628)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (655)

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<220>

<221> misc feature

<222> (686)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (690)

<223> n equals a,t,g, or c

<400> 732

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gaagtggtaa cccgagaata caccatcaac attcacaagc gcatccatgg agtgggcttc 120
aagaagcgtg cacctcgggc actcaaagag attcggaaat ttgccatgaa ggagatggga 180
actccagatg tgcgcattga caccaggctc aacaaagctg tctgggccaagggaataaagg 240
aatgtgccat accgaatccg tgtgcggctg tccagaaaac gtaatgagga tgaagattca 300
ccaaataagc tatatacttt ggttacctat gtacctgtta ccactttcaa aaatctacag 360
acagtcaatg tggatgagaa ctaatcgctg atcgtcagat caaataaagt tataaaattg 420
caaaaaaaaa aaaaaagggc ggccgctcta gaggatccaa gcttacgtac gcgtgcatgc 480
gacgtcatag ctcttctata gtgtcaccta aattcaattc actgccgtcg gtttacaacg 540
```

671

tcgtgactgg gaaaaccctg cgttacccaa cttaatcgcc ttgcagcaca tcccctttcg 600
ccagctgcgt aataacgaan aggcccgnc cgatcgcc ttccacagttg cgcancctga 660
atggcgaatg gacgcgcctt taccgngcan taagcgccgc gg 702

<210> 733
<211> 441
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (22)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (62)
<223> n equals a,t,g, or c

<220>
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<222> (99)
<223> n equals a,t,g, or c

<220>
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<222> (101)
<223> n equals a,t,g, or c

<220>
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<222> (118)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (126)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (152)
<223> n equals a,t,g, or c

<220>
<221> misc feature

672

<222> (185)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (212)
 <223> n equals a,t,g, or c

<220>
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<220>
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 <222> (310)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (356)
 <223> n equals a,t,g, or c

<400> 733
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 anctagtggg tcccccgggc tgcaggattt cggcacganc ncgtgcagat tcgagcanag 120
 gagcgnaagg gaacgtcatc gtttggaag cntcgcaata agacgcacac gttgtgccgc 180
 cgctntggct ctaaggccta ccaccttcag angtcgaact gtggcaaatt tggctaccct 240
 gccaaagcga agagaaagtn taactggagt gccaaaggcta aaagacgaaa taccaccgga 300
 actggtcgan tgaggcacct aaaatttgta taccgcagat tcaggcatgg tttccntgaa 360
 ggaacaacac ctaaacccaa gagggcagct gttgcagcat ccagttcatc ttaagattgt 420
 caacgattag tcatgcaata a 441

<210> 734
 <211> 379
 <212> DNA
 <213> Homo sapiens

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<220>
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<220>
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<220>

<221> misc feature

<222> (342)

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<220>

<221> misc feature

<222> (346)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (375)

<223> n equals a,t,g, or c

<400> 734

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ggccgcagaa gcgagatgac gaagggaacg tcatcgtttg gnaagcgtcg caataagacg 60
cacacgttgt gccgcgcgtg tggctctaag gcctaccacc ttcagaagtc gacctgtggc 120
aaatgtggct accctgccaa gcgcaagaga aagtataact ggagtgccaa ggctaaaaga 180
cgaaatacca ccggaactgg tcgaatgagg cacctaataa ttgtataccg cagattcagg 240
catggattcc gtgaaggaaac aacacctaaa cccaagaggg cagctgttgc agcattccag 300
ttcatcttta agaatgtcaa cgnnttttagt catgcaataa antgtnctgg ggtttttaaa 360
aattaaaaga aaagnaanaa 379
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<210> 735

<211> 187

<212> DNA

<213> Homo sapiens

<220>

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<222> (176)

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<220>

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<220>

<221> misc feature

<222> (179)

<223> n equals a,t,g, or c

674

<220>
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<222> (185)
<223> n equals a,t,g, or c

<400> 735
gcgggatcgt cggtaaatac gggacccgct atggggcctc cctccggaaa atggtgaaga 60
aaattgaaat cagccagcac gccaaagtaca cttgctcttt ctgtggcaaa accaagatga 120
agagacgagc tgtggggatc tggcactgtg gttcctgcat gaagacagtg gntggngng 180
cctgnac 187

<210> 736
<211> 576
<212> DNA
<213> Homo sapiens

<220>
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<220>
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<222> (334)
<223> n equals a,t,g, or c

<220>
<221> misc feature
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<220>
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<220>
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<222> (371)
<223> n equals a,t,g, or c

<220>
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<222> (397)
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<220>
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<220>
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<222> (429)
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<220>
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<222> (436)
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<220>
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<220>
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<222> (466)
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<220>
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<222> (553)
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<400> 736

676

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tcgacccacg cgtccgcccc cgctccggcc tcagccctac cagcactggt catgtctaaa 60
gggtcatcgta ttgaggaagt tcctgaactt cttntggtag ttgaagataa agttgaaggc 120
tacaagaaga ccaaggaagc tgttttgctc ctttaagaaac ttaaagcctg ggaatgatat 180
caaaaaggtc tatgcctctc agcgaatgag agctgggcaa aggcaaatg gagaaaccgt 240
cgccgtatcc agcgcagggc ccgtgcatca tctataatga ggataatggt atcatcaagg 300
ccttccagaa acatccctgg aattactctg cttnaatgtn aagcaagctg aaacattttg 360
naagcttgct ncctggtggg gcatgtgggg acgtttncgg cattgggang gaaatggctt 420
ttccgggant ttaganggan tgtnacgggc antgggcgta aagcgntttc cctccaagn 480
ttaactacan tcttcccagg caccaagatg gattaatana gatcttggca gaatctggaa 540
aagcccagag gtnccaaggg cccttcgggc accagc 576

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<210> 737

<211> 297

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (7)

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<220>

<221> misc feature

<222> (243)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (254)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (261)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (266)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (275)

<223> n equals a,t,g, or c

<400> 737

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ctggcaaaaaa tgtcactttg cctgctgtat tcaaggctcc tattcgacca gatattgtga 120
actttgttca caccaacttg cgcaaaaaca acagacagcc ctatgctgtc agtgaattag 180
cagggtcatca gactagtgtc gagtcttggg gtactggcag agctgtggct cgaattccca 240

```

ganttcgagg tggnggggact naccgntctg gccanggtgc ttttggaac atgtgtc 297

<210> 738

<211> 354

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (80)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (84)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (98)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (120)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (148)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (193)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (286)

<223> n equals a,t,g, or c

678

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 <221> misc feature
 <222> (303)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (329)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (351)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (353)
 <223> n equals a,t,g, or c

<400> 738
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 actctgaagg gacncacagn tatngtgaag ggcccccag gaaccctgcg gagggacttn 120
 aatcacatca atgtataact cagccttntt ggaaagaaaa aaaagaggct ccgggttgac 180
 aaatggtggg gtnacagaaa ggaactggct accgttcgga ctatttgtag tcatgtacag 240
 aacatgatca aggggtgttac actgggcttc cgttacaaga tgaggnetgt gtatgtctac 300
 ttncccatca acgttggttat ccaagagant gggctctattg ttgaaatcca nant 354

<210> 739
 <211> 504
 <212> DNA
 <213> Homo sapiens

<400> 739
 ccgccatcat ggggtcgcatg catgctcccc ggaagggcct gtcccagtcg gctttaccct 60
 atcgacgcag cgtccccact tgggtgaagt tgacatctga cgacgtgaag gagcagattt 120
 acaaaactggc caagaagggc cttactcctt cacagatcgg tgtaatcctg agagattcac 180
 atggtgttgc acaagtacgt tttgtgacag gcaataaaaat tttaagaatt ctttaagtcta 240
 agggacttgc tctgatctt cctgaagatc tctaccattt aattaagaaa gcagttgctg 300
 ttcgaaagca tcttgagagg aacagaaagg ataaggatgc taaattccgt ctgattctaa 360
 tagagagccg gattcacctt ttggctcgat attataagac caagcgagtc ctccctccca 420
 attggaaata tgaatcatct acagcctctg ccttggctgc ataaatttgt ctgtgtactc 480
 aagcaataaa atgattgttt aact 504

<210> 740
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 740

679

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ggacccgccca acatgggccc cgttcgccacc aaaaccgtga agaaggcggc ccgggtcatc 60
atagaaaagt actacacgcg cctgggcaac gacttccaca cgaacaagcg cgtgtgcgag 120
gagatcgcca ttatccccag caaaaagctc cgcaacaaga tagcaggtta cgtcacgcat 180
ctgatgaagc gaattcagag aggcccagta agaggatatct ccatcaagct gcaggaggag 240
gagagagaaa ggagagacaa ttatgttcct gaggtctcag ccttgatca ggagattatt 300
gaagtagatc ctgacactaa ggaaatgctg aagcttttgg acttcggcag tctgtccaac 360
cttcagtcac tcagcctaca gttgggatga tttcaaaac 399

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<210> 741

<211> 431

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (393)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (417)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (425)

<223> n equals a,t,g, or c

<400> 741

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aaacaacggt cgtgccaaaa agggccgcgg ccatgtgcag cccattcgct gcacgaactg 60
cgcccgggtgc gtgcccaagg ataaggccat caagaagttt gtcattcgga acattgtaga 120
agccgctgct gtcagggaca tatctgaagc aagcgtcttc gacgcctacg tgcttcccaa 180
gctctatgtc aagctgcatt attgcgtgac tgtgccatcc atagcaaggt tgtaggaat 240
cgatcccgcgt aagcccggaa ggaccgaaca cccccaccac gattcagacc tgctggcgct 300
gcaccttcga cctccaccaa agcccatgta aagangccgt ttttgtaagg acggaaggaa 360
aattaccttg gaaaaataaa atggaagttg tantttttaa aaaaaaaaaa aaaccnagg 420
ggggncccgct c 431

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<210> 742

<211> 357

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (178)

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<220>

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<222> (240)

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<220>

<221> misc feature

<222> (273)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (297)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (324)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (352)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (353)

<223> n equals a,t,g, or c

<400> 742

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ttcatggatg tcatcagcat tgacaagacg ggagagaatt tccgtctgat ctatgacacc 120
aagggtcgct ttgctgtaca tcgtattaca cctgaggagg ccaagtacaa gttgtgcnaa 180
gtgagaaaga tctttgtggg cacaaaagga atccctcatc tgggtgactca tgatgcccgn 240
accatccgct accccgatcc cctcatcaag gtnaatgatc cattcatatt gatttanaga 300
ctgggcaagat tactgatttc atcnatttcg acactggtaa cctgtgtatg gnnactg 357
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<210> 743

<211> 249

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (42)

<223> n equals a,t,g, or c

<220>

681

<221> misc feature
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<220>
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<222> (115)
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<222> (122)
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<220>
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<222> (158)
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<220>
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<222> (200)
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<220>
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<222> (215)
<223> n equals a,t,g, or c

<220>
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<220>
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<222> (248)
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<400> 743
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taactccatg atgatgnacg ggcgcaacaa cggcaagaag ctcattgactg tgcgnatcgt 120
cnagcatgcc ttcgagatca tacgcctgct cacaggcnaa gaaccctctg caggtccttg 180
tgaacgccat catcaacatn ggtccccggg aagantccac ncgcattggg cgcgccggga 240
ctgttgana 249

<210> 744
<211> 383
<212> DNA
<213> Homo sapiens

<400> 744
gaagaattgc atcgtgctca tcgacagcac accgtaccga cagtgggtacg agtcccacta 60
tgcgctgccc ctggggccgca agaaggggagc caagctgact cctgaggaag aagagatttt 120
aaacaaaaaa cgatctaaaa aaattcagaa gaaatatgat gaaaggaaaa agaatgccaa 180
aatcagcagt ctccctggagg agcagttcca gcagggcaag cttcttgctg gcatcgcttc 240
aaggccggga cagtgtggcc gagcagatgg ctatgtgcta gagggcaaag agttggagtt 300
ctatcttagg aaaatcaagg cccgcaaagg caaataaata cttgttttgt cttcacccat 360
gtaataaagg tgttttattgg ttt 383

<210> 745

<211> 452

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (314)

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<220>

<221> misc feature

<222> (328)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (334)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (352)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (403)

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<220>

<221> misc feature

<222> (416)

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<220>

<221> misc feature

<222> (429)

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<220>

<221> misc feature

<222> (435)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (451)

<223> n equals a,t,g, or c

<400> 745

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ggcagccttc ctcaaaaagt ccgggaagct gaaagtcccc gaatgggtgg ataccgtcaa 120
gctggccaag cacaaagagc ttgctcccta cgatgagaac tggttctaca cgcgagctgc 180
ttccacagcg cggcacctgt acctccgggg tggcgctggg gttggctcca tgaccaagat 240
ctatggggga cgtcagagaa acggcgctcat gccagccac ttcagccgag gctccaagag 300
tgtggcccg cggntcctcc aagccctngg agngngctgaa aatggtggaa anggaccaag 360
atggcgggcc gcaaactgac acctcagggg caaagagatc tgnacagaat cgccgnacag 420
gtggcagcnt gccancaaag aagcattaga nc 452
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<210> 746

<211> 114

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (11)

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<220>

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<222> (22)

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<220>

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<222> (55)

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<220>

<221> misc feature

<222> (85)

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<220>

<221> misc feature

<222> (98)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (103)

<223> n equals a,t,g, or c

<400> 746

tgcattgctgg ngctggctcct gnccttgctg tcctccagct ctgctgagga gtacntgggc 60
ctgtctgcaa accaatgtgc cgtgncagcc aaggacangg tgnactgtgg ctac 114

<210> 747

<211> 165

<212> DNA

<213> Homo sapiens

<400> 747

ggcacagcca cccagggcct gagtcctgtc cacaccccag gtgacggccg gctccacaag 60
gcagtgagcg tgggcccccg ggtgcacatc attgaggagc tgcagatctt ctcattcgga 120
cagcccgtgg cagaatctgc tcctgggaca cccacagggg ggctg 165

<210> 748

<211> 583

<212> DNA

<213> Homo sapiens

<220>

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<222> (46)

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<220>

<221> misc feature

<222> (291)

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<220>

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<222> (341)

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<220>

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<222> (387)

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<220>

<221> misc feature

<222> (458)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (462)

<223> n equals a,t,g, or c

685

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 <222> (480)
 <223> n equals a,t,g, or c

<220>
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<220>
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 <222> (543)
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<220>
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 <223> n equals a,t,g, or c

<220>
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 <222> (580)
 <223> n equals a,t,g, or c

<400> 748
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 aagagcactg gactccggaa ggacacagca ttgttggttt tgccatgtac tattttacct 120
 atgaccctgt gattggcaag ttattgtatc ttgaggactt cttcgtgatg agtgattata 180
 gaggcctttg cataggatca gaaattctga agaattctaag ccagggtgca atgagggtgtc 240
 gctgcagcag catgcacttt tttggttagca gaatggaatg aaccattcat naacttctat 300
 aaaagaagag gtgcttctga tctgtccagt gaagaagggt ngagacttgt taagaatcga 360
 caaggagtct tgctaaaaat ggcaacntag gagtgaggaa tgcttgctgt agatgacaac 420
 ctccattcta ttttagaata aaattcccca actttctntt gntttcttat gctgggttgg 480
 agtgaaatta atttaaata gcaccattt caaaagcttt aattaccaag tgggcgnttg 540
 ntncctgtgt ttgaaaattg aaggtcttgt tttaaaaggg ggc 583

<210> 749
 <211> 419
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (3)
 <223> n equals a,t,g, or c

<220>
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<222> (16)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (24)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (29)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (169)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (342)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (351)
<223> n equals a,t,g, or c

<220>
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<222> (376)
<223> n equals a,t,g, or c

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<221> misc feature
<222> (398)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (419)
<223> n equals a,t,g, or c

687

<400> 749

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acnccggaggc ttcttnatta cggncggggnn tgatgagggg aagctggtga cgcctgcagg 60
tgaccgggtcc ggaattcccg ggctcgaccca cgcgtccggg cgtgatgtct cacagaaagt 120
tctccgctcc cagacatggg tccctcggtt tcctgcctcg gaagcgcana gcaggcatcg 180
tggaaggtg aagagcttcc ctaaggatga cccgtccaag ccggtccacc tcacagcctt 240
cctgggatac aaggctggca tgactcacat cgtgcgggaa gtcgacaggc cgggatccaa 300
ggtgaacaag aaggagggtg gtggaggctg tgaccattgt anagacacca nccatggtg 360
tttgtgggca ttgttngcta cgttggaata ccctcgangg ctccggaact tcaagaatn 419

```

<210> 750

<211> 507

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (453)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (475)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (497)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (499)

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<220>

<221> misc feature

<222> (503)

<223> n equals a,t,g, or c

<400> 750

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tactgtcttc agaaaactca tgatgatcct ggccatgaat gaaaaggata agaagaaaga 120
gaagaaatga agtgaccatc cagcctttcc caattagact tcctctcctt ccaccctca 180
tttccttttt gcacacatta cagggtggtg gttctgtgat aatgaaaagc atcagaaaag 240
cttttgtact ttgtggtttc ctctattttg aattttttga tcaaaaaact gattagcaga 300
atatagtttg gagtttggtc tcactctcct ggggttcccc tcaactcctt ttttggcaac 360
cccatctgta gcctcttcct ctactcaggc agtcgacccg ccacgatgag aagtgggacc 420
agcagagggc gccaaactca ggagcccgtc ttnccaccca gcttcattca cccantggac 480
ctgaactggt ttgggtananc ccnccgg 507

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<210> 751

<211> 435
<212> DNA
<213> Homo sapiens

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<223> n equals a,t,g, or c

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<222> (31)
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<220>
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<222> (110)
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<222> (151)
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<220>
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<222> (199)
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<220>
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<222> (239)
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<220>
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<222> (331)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (355)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (363)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (365)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (403)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (420)

<223> n equals a,t,g, or c

<400> 751

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ggatcccccg ggctgcaggt agcctgagct tagctcagcg ccggggcctn accaagacct 120
acactgttgg ctgngaggaa tgcacagtgg ntccctgntt atccatcccc tgcaaactgc 180
agagtggcac tcattgctng tggacggacc agctnctnca aggctntgaa aagggcttnc 240
agncccgtea ccttgcntgc ctgcctcggg agccagggct gggcacctgg cagtncctgc 300
gggccagat agcctgaata ntgnccggag nggaagctga agcctgcaca gtgtncaccc 360
tgtnccact cccatctttc tttcggacaa tgaaataaag agntaccacc cagcaaaaan 420
aaaaaaaaaa acctg 435
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<210> 752

<211> 591

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (195)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (240)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (319)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (345)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (365)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (407)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (452)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (456)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (480)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (556)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (570)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (572)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (579)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (586)
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<400> 752
gcggcacgag gcgcccagag agacaccaga gaaccaccca tggccccctt tgagcccctg 60
gcttctggca tctgttgtt gctgtggctg atagcccca gcagggcctg cacctgtgtc 120
ccaccccacc cacagacggc cttctgcaat tccgacctg tcatcagggc caagtctgtg 180
gggacaccag aagtnaacca gaccacctta taccagcgtt atgagatcaa gatgaccaan 240
atgtataaag ggttccaagc cttaggggat gccgctgaca tccggttcgt ctacaccccc 300
gccatggaga gtgtctgcng atactttcac aggtcccaca accgnagcga ggagtttctc 360
attgntggaa aactgcagga tggacttttg cacatcacta cctgcanttt tgtggctccc 420
tggaacagcc tgagcttagc tcagcgccgg gncctnacca agacctacac tgttggctgn 480
gaggaaatgc acaagtgtt ccctgtttat ccatcccctg caaactgcag agtgggcact 540
cattgtttgt aggacngacc agctcctacn angctcttna aaaggncttt c 591

<210> 753
<211> 547
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (429)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (454)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (489)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (503)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (512)
<223> n equals a,t,g, or c

693

<400> 753

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aagcacttgt ccagatgagc agtgtgtgaa ttctcctgga tcttaccagt gcgttccctg 60
cacagaagga ttccgaggct ggaatggaca gtgccttgat gtggacgagt gcctggaacc 120
aaacgtctgc gcaaatggtg attgttccaa ccttgaaggc tcctacatgt gttcatgcca 180
caaaggctat acccggaactc cggaccacaa gcaactgtaga gatattgatg aatgtcagca 240
agggaatcta tgtgtaaacg ggcagtgcaa aaataccgag ggctccttca ggtgcaactgt 300
ggacaggggt taccagctgt cggcagctaa agaccagttt gaagacattg atgaatgcca 360
caccgtcatc tctgttgctc atgggcatgc aagaacactg aagctctttt ccatgtgttt 420
tttgaccang gttacagaac atctgggctt gganacactg tgaaaaattt caatgaatgc 480
ttggaagana aaatttttgc canaaaagaa antgctttat actgcagggt cctatgatgt 540
cttgtcc 547
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<210> 754

<211> 384

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (307)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (374)

<223> n equals a,t,g, or c

<400> 754

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gctcggctcc agcgccatgg cgccctccag gaagttcttc gttgggggaa actggaagat 60
gaacgggcgg aagcagagtc tgggggagct catcggcact ctgaacgcgg ccaaggtgcc 120
ggccgacacc gaggtggttt gtgctcccc tactgcctat atcgacttcg cccggcagaa 180
gctagatccc aagattgctg tggctgcgca gaactgctac aaagtgacta atggggcttt 240
tactggggag atcagccctg gcatgatcaa agactgcgga ccacgtgggt ggtcctgggg 300
cactcanaga gaagcatgtc tttggggaat cagatgagct gattgggcag aaagtggccc 360
atgctctggc aganggactc ggat 384
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<210> 755

<211> 253

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (60)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (217)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (240)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (244)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (252)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (253)
<223> n equals a,t,g, or c

<400> 755
tgtagatctt tgaagactct gattctctga gactgaggag agatgtctta ccagcagcan 60
cagtgcagc agccctgcc gccacctcct gtgtgcccc cgccaaagtg cccaagagcc 120
atgtccaccc ccgaagtgcc ctgagcctta cctgcctcct ccttgtccac ctgagcattg 180
cccacctcca ccttgccagt ataaatgccc tcctgtngca accataccac cctggcagcn 240
gaanttcccc cnn 253

<210> 756
<211> 183
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (48)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (79)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (83)

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<220>

<221> misc feature

<222> (108)

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<220>

<221> misc feature

<222> (141)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (144)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (146)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (148)

<223> n equals a,t,g, or c

<400> 756

ggcanaaana aggttaggaat aaggctagac cttaacttc cctaagggnat acttttntag 60
ctaccttctg ccctgtgtnt ggnacctaca tccttaatga ttgtcctntt acccattctg 120
gaattttttt ttttttaaaa naantncnga aagcattttg aaaaaaaaaa aacaaaaaaaaa 180
aag 183

<210> 757

<211> 99

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<220>

<221> misc feature

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (33)

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<220>

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<222> (45)

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<220>

<221> misc feature

<222> (77)

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<220>

<221> misc feature

<222> (79)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (82)

<223> n equals a,t,g, or c

<400> 757

agcctttaat anatcatata ggaaantggg agntgcagta cggtnngaat tccgggtgac 60
tcagcggtccg ggattgnanc anctgggatt ggagtttgg 99

<210> 758

<211> 60

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (36)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

697

<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (45)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c

<400> 758
ggcacgaggt tttttttttt tttttttttt ttttntntn ttttnntttt ttaaaaaaaaa 60

<210> 759
<211> 66
<212> DNA
<213> Homo sapiens

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<220>
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<222> (59)
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<220>
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<222> (63)
<223> n equals a,t,g, or c

<220>
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<222> (65)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (66)
<223> n equals a,t,g, or c

<400> 759
agaganaacc gagttttttt tttttttttt tttttttttt tttttttttt ttttttttnc 60
centnn 66

698

<210> 760
<211> 487
<212> DNA
<213> Homo sapiens

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<222> (409)
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<220>
<221> misc feature
<222> (433)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (473)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (475)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (477)
<223> n equals a,t,g, or c

<400> 760
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ccaggcggac aaagttcagt gtcgggaatt ttccccgtga cattcactgg ggcattgagat 120
tttggaagaa gtttttttact ttgggttagt ctttttttcc ttccttttta ttcagctaga 180
atttctggtg ggttgatggt aggggtataat gtgtctgtgt tgcttcaaatt tgggtctgaaa 240
ggctatcctg ctgaaaagtc tgcttttccta tctagcattt atttctctgg caaacttttc 300
tttcttttct tttttaaaagt aaacttgtgt attgagctta actgtatttc agtattttcca 360
gcttatgtgt acattattcc aatgataccc aacagttatt tatattttnt aacaaattca 420
cagtctgaat gangacttta tttcatggat tataataagg aatgaggtaa ttngngnctc 480
acattca 487

<210> 761
<211> 422
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (253)
<223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (297)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (350)
 <223> n equals a,t,g, or c

<220>
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 <222> (353)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (382)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (403)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (406)
 <223> n equals a,t,g, or c

<400> 761
 gaaaaggcta aaatcatgaa ttagttacaa gcaacagtac caacttatgt gacccttgag 60
 ggggtgggct gtgagctctt aatttgtttt tgattctgaa aaactctgct tcttggcatc 120
 caggagttag agattgagcc ttatcatctt tttctcaaaa ctagtttttg atgctttctt 180
 tcatgggaat agtcactttt ttatttagta aatcgcatg ctggaaccac caaggatgtg 240
 gaatgtcctt gantgtatta tttatgcaag tcacagtcac gtttgccatc atggcantat 300
 ttgaaacact aataatgtgt ttttactttt ttatccccgt taaaatgatn ttnaaaagga 360
 aaaagggtggg tatagcccct anaatttctg ggtccaaatt atnccnaaaa tttcctaaaa 420
 aa 422

<210> 762
 <211> 375
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (279)
 <223> n equals a,t,g, or c

700

<220>
<221> misc feature
<222> (315)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (373)
<223> n equals a,t,g, or c

<400> 762
tttgaccact tgccaagtcc ctgtctcttt cagacacaga caagcttcat tttaaattatt 60
tcaactgatg aagtaacaat aaagttataa atgataatga tcagatgaaa taattttataa 120
ctttattggt acttcatcag tgtttccttt tgaaagggtgt atgaattcat tacattttta 180
ttctaagtga ttatctgtag attagaagat aaaatcaagc atgtatctgc ctatactttg 240
tgagttcacc tgtctttata ctcaaaagtg tcccttaana gtgtccttcc ctgaaataaa 300
tacctaaggg agtgnaacag tctctggagg accactttga gcctttggaa gttaagggtt 360
cctcagccac ctngt 375

<210> 763
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (261)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (301)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (320)
<223> n equals a,t,g, or c

<220>
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<222> (338)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (344)
<223> n equals a,t,g, or c

<220>
<221> misc feature

<222> (354)

<223> n equals a,t,g, or c

<400> 763

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caatatgtag cttactcttt ttttcccccc ttcttaaacc accagtgggtt cattttttaag 60
atTTTTtcat caagagaaga ataactttac taaattttat ttctttattt gcaaaagaat 120
ctttattaaa acaaacaatc ttaactatgc acatgatgtg accagatcat cttgaaaata 180
ttcctcttta gtaggaactc tttgttttta actcttggtg tggtcagaat ataatacttc 240
cataattact tataattcct ntccgggtac tgggggctat aaatacaact tttttaaatg 300
naattcatgg ttatcaaccn ggctccaagt accattangg ggtncctat gggnaattac 360
cttgggaaag tc 372
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<210> 764

<211> 195

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (46)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (60)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (67)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (71)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (86)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (94)

<223> n equals a,t,g, or c

702

<220>
<221> misc feature
<222> (128)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (146)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (151)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (153)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (183)
<223> n equals a,t,g, or c

<400> 764
cggacgcgtg ggcggacgcg tggggaaagg taagctctag cttaangtct angatttgtg 60
ctttganatt naggaaggta aggatngggtc agangatgta acttgatgtg agcagtaata 120
aacctgtntt aaatatcata ctgtgnatat ntnattgaaa atttatttca gagcggaaaa 180
acnttagcta aaatc 195

<210> 765
<211> 103
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (30)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (76)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (83)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (91)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (94)
<223> n equals a,t,g, or c

<400> 765
attaataatg gataccattc taaacaagtn aatccaagtt aagcccgta aggagaaaga 60
aattaagggt agcggntcat gtncaagctg ngnttgaaag tgg 103

<210> 766
<211> 538
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (285)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (316)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (327)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (379)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (436)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (441)
<223> n equals a,t,g, or c

<220>

<221> misc feature
<222> (445)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (450)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (474)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (504)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (516)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (520)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (522)
<223> n equals a,t,g, or c

<220>
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<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (534)
<223> n equals a,t,g, or c

<400> 766
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ggcttcatcc tcaccgagcg cctgggcagc ggcacgtacg ccacggtgta caaggcctac 120
gccaaagaagg acaactcgtga agtggtagcc ataaagtgtg tagccaagaa aagtctgaac 180
aaggcatcgg tggagaacct cctcacggag attgagatcc tcaaggcatt cgacatcccc 240
acattgtgca gctgaaagac tttcagtgtg agctgggggc ggggncgctg ccaaaggag 300
tggagaagga catctntttc aggccgnctc tctgcctctt aaaacaacag ttgggaacag 360

705

ttgaaccaat taatcttanc ttcaatccat tgggaagttt ttttgccggc caaggggggg 420
gccggaaacc ttggtncctc nggcntttcn aatcccaatt aaaccccggc caanggaatt 480
ttcttgggccc cttgaaagaa aaanggtttg ggcccnccn tnggtncctt tccnaatg 538

<210> 767
<211> 415
<212> DNA
<213> Homo sapiens

<220>
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<222> (350)
<223> n equals a,t,g, or c

<400> 767
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ctgcagtgat acttctggta gatgtcacc c agtggtttt gttaggtcaa atgttcctgt 120
atagtttttg caaatagagc tgtatactgt tttaatgtag caggtgaact gaactggggg 180
ttgctcacct gcacagtaaa ggcaaacttc aacagcaaaa ctgcaaaaag gtgggttttg 240
cagtaggaga aaggaggatg tttatgtgca gggcgccaag caaggagaat tgggcagctc 300
atgcttgaga cccaatctcc atgatgacct acaagctaga gtattttaan gcagtggtaa 360
atttccagga aagccagaag ttaaaggcca aaattgtaaa tcagtcgaga tcggg 415

<210> 768
<211> 425
<212> DNA
<213> Homo sapiens

<220>
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<222> (351)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (381)
<223> n equals a,t,g, or c

<220>
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<222> (389)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (422)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (423)

<223> n equals a,t,g, or c

<400> 768

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gacccctcag gccaggccct gatccagttc tccaggggtct ttctcagggg caggtccatg 120
gggagaccat ggggtgcttg tctgacactg acctcgccct gctgagtccc cccatcagac 180
tgtccttcct ctgcagcgag tgtctgcagg gtctggatcc aggaaaggaa ttctgatctg 240
tggaagtttg tctccccgt gtgtgtcctg cactaaatgt ccaaaccctg atacaggatg 300
taatgcagag agggccacag gcacaaccca ggctgacaa tcccgtatgt nggaagtaga 360
actgaccccc aacaccaga ngtcattgng aaatactcac ggtatacatg gaaaaaaaaa 420
annaa 425
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<210> 769

<211> 256

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (34)

<223> n equals a,t,g, or c

<220>

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<222> (60)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (83)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (85)

<223> n equals a,t,g, or c

<220>

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<222> (112)

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<220>

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<222> (120)

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<220>

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<222> (151)

<223> n equals a,t,g, or c

707

<220>
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<222> (200)
<223> n equals a,t,g, or c

<220>
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<222> (211)
<223> n equals a,t,g, or c

<220>
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<222> (235)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (250)
<223> n equals a,t,g, or c

<400> 769
attctagatg tagcttgtgc agatgtagca gganaatagg aaaacctacc atctcagtgn 60
gcaccagctg gcctcccaaa ggngnggcag ccgtgcttat atttttatgg tnacaatggn 120
cacaaaatta ttatcaacct aactaaaaca ntccttttct ctnttttcct ggaattatca 180
tgtagttttc taattctctn ttttggaat ngtagattgt ttttgaaatg ctttnacgat 240
gttaaaatan tttatt 256

<210> 770
<211> 316
<212> DNA
<213> Homo sapiens

<220>
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<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (158)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (173)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (200)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (228)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (266)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (267)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (281)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (284)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (291)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (294)

<223> n equals a,t,g, or c

<400> 770

ggnagaggtt caacgatgtg gtgtggcatg taagctggtc catcanagcc aacatcctgg 60
ctgtctctgg tggagacaat aaggaggagt tacagatgca gccacagatt gatcatctgc 120
ctttaacgtg aatcggagat gctttgtaat ctactgtgcc agctgaagca ctncatgtta 180

709

cgaggaagaa actacaagtn atgttcaaact ctattttggg tcatttttnat gtacctttgg 240
gttcaggcat tattttggggg gtttttnnttc caaaggaact naantaaagt natnttgctt 300
attaaaaaaaa ggaaaaa 316

<210> 771
<211> 68
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (8)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (14)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (22)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (32)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (36)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (55)
<223> n equals a,t,g, or c

<400> 771
caaaagcngg agcnccaccg cnggcgaccg cncctanaact agtggatccc ccggnctgca 60
ggaattca 68

<210> 772
<211> 258
<212> DNA
<213> Homo sapiens

<220>
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<222> (17)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (42)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (45)

<223> n equals a,t,g, or c

<220>

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<222> (47)

<223> n equals a,t,g, or c

<220>

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<222> (60)

<223> n equals a,t,g, or c

<220>

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<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (139)

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<220>

<221> misc feature

<222> (155)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (189)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (225)

<223> n equals a,t,g, or c

711

<220>
<221> misc feature
<222> (235)
<223> n equals a,t,g, or c

<220>
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<222> (250)
<223> n equals a,t,g, or c

<220>
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<223> n equals a,t,g, or c

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nttgggtcat ttccacatgc tttattccag caatcaaaat aattaaaaac atctcaaatt 120
attatacaca tacaaaatng gtacagagtc ttttncttcc tcccaccctt aggggggaaaa 180
actgctttnt gctttgggaa gttgtctctg aaaccggggg acagnggacg caggncagac 240
taggagggan ccgggang 258

<210> 773
<211> 587
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (535)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (559)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (565)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (570)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (572)

<223> n equals a,t,g, or c

<400> 773

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ggatcccaac tgctcctgcg ccgccggtaa gaggctgggg atgccagtg tagactgtag 60
cgctagagaa gcaatttctg acccctcttt ctttctctgg tcaactcaatt tcaggacagg 120
agttgctcct tcccaaagag ttttggggta tcttctcttc cattctaggt tattcggagc 180
ccccttttta ccgttaagga gatctgagtt aatggcttgc tcaagttccc aggaatcggg 240
tgtggactga ggaactcggc cccgggctct tagtacgccg tcccttggtc aggtatccag 300
ggacggttct cacctctgtc ttttctcctt gcagggtgact cctgcacctg cgccggctcc 360
tgcaaatgca aagagtgcaa atgcacctcc tgcaagaaaa gtaagtggga tcctctcttt 420
cctctacccc ttctgtcct ccagcctgtc ccctcttcac catcctcagg ggaattaaag 480
caagtctggg gatgccccat tgcgccggga aattgggtggc ctctcagtg atccntatca 540
aggagaagca aggaatccnt aattnccggn gnccgttgta cttaact 587
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<210> 774

<211> 89

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (74)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (76)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (77)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (79)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (83)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (86)

<223> n equals a,t,g, or c

<400> 774

ggcagagggga aacatcaggn atgctaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaanannana aanaantat 89

<210> 775

<211> 113

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (10)

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<220>

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<222> (30)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (32)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (59)

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<220>

<221> misc feature

<222> (75)

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<220>

<221> misc feature

<222> (77)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (106)

<223> n equals a,t,g, or c

714

<400> 775

ggtccggcgn ggtggagga aacgcctccn tntctatata aggaatttcc cgggtgtntnc 60
gggtcctttt ccctntnttc agagtggggg gcccaaattt gggcgntctg ttt 113

<210> 776

<211> 66

<212> DNA

<213> Homo sapiens

<220>

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<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (13)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (49)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (65)

<223> n equals a,t,g, or c

<400> 776

ggcanaggat ttnaaccctc accttcgtgt ttcccccaat gtttaaaang tttggatggt 60
ttgtng 66

<210> 777

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (401)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (436)

<223> n equals a,t,g, or c

<400> 777

atttgatga aagaacttaa gcaaccttaa tattggctga gactttttaa agagaaggag 60

715

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aatttacttt tttgcctaatt taggaggaag cttgggtcata aggaaaaaga gctgtgttta 120
ggaaatagtg tgtgcccttt gaattaatgg agtgacaccg tgattcatga caggattcca 180
tttactggct gtatgccagc tgctgacagt ctataagtct taatagagat ggagtagagg 240
agctgaaggt tggcatctgc tcattgatga caactatgtt tacaatatgt tgtggactag 300
ttggggcact gaggcaggag aatcacgtgg agcccacggg ttcaagacca gcctgggaaa 360
catagcaaga ccttgtttct aaaaaaaaaa aaaaaaaaaa ncgagggggg gcccggtacc 420
caattcgccc taaagngagt c 441
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<210> 778

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (335)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (356)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (471)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (472)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (478)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (481)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (482)

<223> n equals a,t,g, or c

<400> 778

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gcttactttt aaccagtgaa attgacctgc ccgtgaagag gcgggcataa cacagcaaga 60
cgagaagacc ctatggagct ttaatttatt aatgcaaaca gtacctaaca aaccacagg 120
```

716

```

tcctaaacta ccaaacctgc attaaaaatt tcggttgggg cgacctcgga gcagaacca 180
acctccgagc agtacatgct aagacttcac cagtcaaagc gaactactat actcaattga 240
tccaataact tgaccaacgg aacaagttac cctagggata acagcgcaat cctattctag 300
agtccatatc aacaataggg tttacgacct cgatnttgga tcaggacatc ccgatngtgc 360
agccgctatt aaagggttcgt ttgttcaacg attaaagtcc tacgtgatct gagttcagac 420
cggagtaatc caggtcggtt tctatctact tcaaattcct ccctggaaaa nnagaagngg 480
nng

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<210> 779

<211> 389

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (261)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (325)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (337)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (362)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (367)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (389)

<223> n equals a,t,g, or c

<400> 779

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ccctcttccc ggctccagct ccgccgccag ctccagcctt tgctccccct cccaaagtcc 60
cctccccgga gcgagcgca cctaggggcc ctcttcgcgc cccccagccc agctaccgct 120
tcagaccagc agcctcgggg ggcaccccc cgccagcctg cctccctccc gctcagccct 180
gccagggttc cccagccatg aatctcttcc gattcctggg aaaactctcc caactcctcg 240
ccatcatctt gctactgctc naaatctgga attcccgcgc gtgcgccgaa attcaggaaa 300
aaaacagtcc cgtttggtgt ggggnnttca atggccnaat ttgaaatcct ttcacaataa 360
tntttantct aaaaattttt ttaaagggn

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<210> 780
<211> 66
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (18)
<223> n equals a,t,g, or c

<400> 780
ttgtttttaa aactatgnac caggtttcta atgatgaaat aaagcacctg tttgttttat 60
accaaaa 66

<210> 781
<211> 255
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (83)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (94)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (133)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (150)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (163)
<223> n equals a,t,g, or c

<220>

718

<221> misc feature
<222> (172)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (179)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (182)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (184)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (209)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (224)
<223> n equals a,t,g, or c

<400> 781
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gtaactgcgg acaagttgct ttnacctgaa tttnatgata catttcatta aggttccagt 120
tataaaatat ttngttaa atttattaan gtggactata gantgcaaac tnccatttnc 180
cngntaaact tgtttttaaa ttatggccnt aggtaacca tatngtaggg tattaatttc 240
cttggaacca aacca 255

<210> 782
<211> 348
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (3)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (28)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (32)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (75)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (123)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (135)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (178)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (182)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (296)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (298)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (307)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (323)
<223> n equals a,t,g, or c

<220>

<221> misc feature
 <222> (324)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (345)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (346)
 <223> n equals a,t,g, or c

<400> 782
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 tgaatccacc cgagnttggc ctccaagtg gctgggcatt ataggcgtga gcactcacgt 120
 ccncgcctca aaatngcata ttcaaagaag caatttcagt tcctttctaa gctttgtnag 180
 tnaaggggct cactgactt cctaggccct gtaaatttaa accagtcttt aaggttttgc 240
 caggaaagt cccttctttc caagtgggtt tttccaaatg ggcacaatgg caagcnaac 300
 agaggangaa acattaataaa aannaaaaaa aatttggggg ggggnncc 348

<210> 783
 <211> 160
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (29)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (47)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (49)
 <223> n equals a,t,g, or c

<220>
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 <222> (78)
 <223> n equals a,t,g, or c

<220>
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 <222> (82)
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<220>
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<222> (131)
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<222> (142)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (144)
<223> n equals a,t,g, or c

<220>
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<222> (146)
<223> n equals a,t,g, or c

<400> 783
ggcacgagct acaatggcac tgtggactna tgtttccttc gccgagngnc tggagcgggg 60
atctgatgaa aaggtcanac tnaaacgcct tgcacggctt ctcggttga tcacagctcc 120
ctaggtaggt naccacagag nngnccttc tagtgagcct 160

<210> 784
<211> 81
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (25)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (77)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (78)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (79)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (81)
<223> n equals a,t,g, or c

<400> 784
ggcacgagcc gggatcgtgc cattncattc cagtctgggt gacagagcta gactccatct 60
caaaaaaaaa aaaaaannng n 81

<210> 785
<211> 541
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (175)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (265)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (354)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (355)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (356)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (361)
<223> n equals a,t,g, or c

<220>
<221> misc feature

<222> (364)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (369)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (393)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (399)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (405)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (411)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (463)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (489)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (521)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (530)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (539)

<223> n equals a,t,g, or c

<400> 785

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gagctgcagg catcagagaa ccagccctgc tcacgccatg cccgcccccg ccttccctct 60
tccctcttcc ctctccctgc ccagccctcc cttccttctt ctgccggcaa ggcagggacc 120
cacagtggct gcctgcctcc gggagggaa gaggagggagg gtgggtgggt ggganggggc 180
cttctccag ggaatgtgac tctcccaggc cccagaatag ctcttgacc caagcccaag 240
gccagcctg ggacaaagct ccganggtcg gctggccgga gctattttta cctcccgctt 300
cccctgctgg tgccccacc tggacgtctt gctgcagagt ctgacactgg attnnnaaaa 360
nctnaaaang aaccctggta cccaattctg ggncccggnc ctaanctcgg nccaaccca 420
tcatctgtgg acaatggagt ctggaataaa tgctgtttgt canatcaaca aaaaaaaaaa 480
aaaaggggng gccgctttag aggattcaaa gcttaagtaa nggtgcatgn gaagttcana 540
a 541
```

<210> 786

<211> 433

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (230)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (350)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (400)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (402)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (405)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (422)

<223> n equals a,t,g, or c

<400> 786

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cccacgcgtc cggctctaaca cgtgcgcgag tcgggggctc gcacgaaagc cgccgtggcg 60
```

725

```

caatgaaggt gaaggccggc gcgctcgccg gccgaggtgg gatccccgagg cctctccagt 120
ccgccgaggg cgcaccaccg gcccgctctcg cccgccgcgc cggggaggtg gagcacgagc 180
gcacgtgtta ggacccgaaa gatggtgaac tatgcctggg cagggcgaan cagaaggaaa 240
ctctggtgga ggtccgtagc ggtcctgacg tgcaaatacg tcgtccgacc tgggtatagg 300
ggcgaaagac taaatcgaac catcttagta agctggtttc cctccgaaan tttccctcaa 360
gataagcttg gcgctctcgc aagaccccgga aggaaccccn gncanggaat ttttatccgg 420
tnaaagcgaa ttg 433

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<210> 787

<211> 527

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (492)

<223> n equals a,t,g, or c

<400> 787

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cccaggatgt gtggcgagag cctggggccag cccacagcgt tcctagtcag gcagccacac 60
cttggtcctc atcttgggtcc cttccaatct gaaacctcgt gcctggctcg tctgccacct 120
acatttctct ttccagctgc tgttttgtaa aaagaaaaag aaaaaagaag cccaaactag 180
tgagagtaat atctaattat ctcatttttt gtaggtctgt gataaagaac ttagtcatcc 240
cttccacctc ctactgtgaa gaacagaccc tgggtccac actgaaatcc cctctagtca 300
cccattccca cccccaggg agctgcctcc caggcagggg gtgcagaaaa tgattgatgg 360
gctggggaac cctggagagc ctcgactccg gaagtctcaa ggtgcctcct cctctcctta 420
gctggcccggt tggttttctg agcagggggc tgaactgtga acaagtcaga caaataaagc 480
aagggtctgc ancatctgca atgtcaaaaa aaaaaaaaaa aaaaaaa 527

```

<210> 788

<211> 203

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (121)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (160)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (179)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (181)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (192)

<223> n equals a,t,g, or c

<400> 788

```
gcttcatgtg gtctgacaat ttatTTTTgc catcattttt ttaattaaag aaaaaatttc 60
cagaagagga aaaaaaaact acaaaaaaca aaacattgaa ggttgatatt ttatgtggaa 120
naacatttga attgaattca gaatttttct gaagggtgtan atactttttt tttttttttna 180
ncaaaaaccc tnatttcaaa agg                                     203
```

<210> 789

<211> 124

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (38)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (70)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (87)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (94)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (113)

<223> n equals a,t,g, or c

<400> 789

```
ggcacgagca gcctacagcc gcctgcatct gtatccaneg ccaggtcccg ccagtcccag 60
ctgcgcgcgn cccccagtcc cgcaccngtt cggncacaggc taagttagcc ctnaccatgc 120
cggt                                             124
```

<210> 790

<211> 293

<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (44)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (52)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (79)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (125)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (134)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (141)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (160)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (179)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (184)

728

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (222)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (266)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (275)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (281)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (287)

<223> n equals a,t,g, or c

<400> 790

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ggcanagcgg cagtccagga cctgcaggcc ccagaggacc tgtnggaccc antggacctc 60
ctggcaaaga tggaaccant ggacatccag gtgccattgg accaccaggg cctcgaggta 120
acagnngtga aagnggatct nagggctccc cagggccacn cagggcaacc agggccctnc 180
tggnacctcc tgggtgcccct ggtccttgct gtggtggtgt tngagccgct gccattgctg 240
ggattgggag gttgaaaaag cttggnccgt tttgnccccg ngtttantgg ggg          293
```

<210> 791

<211> 129

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (93)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (104)

<223> n equals a,t,g, or c

<220>

<221> misc feature

729

<222> (113)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (116)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (119)
<223> n equals a,t,g, or c

<400> 791
gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaagg gcggccgttt tanaggatcc aagnttacgt acncgngcnt 120
gcaacgtca 129

<210> 792
<211> 267
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (247)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (250)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (253)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (265)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (267)
<223> n equals a,t,g, or c

<400> 792
ggcacgagcg gccttgagcg cgacgaagac gtgtaggcct gctttccgag gggcgagcgc 60
ggcgccgcgg ggaggagggc ctgcgcgcag tcccgggcgc gttctagggc gccatgctgc 120

730

gggaagtctc gcgcgattag tggggaggtc tcgcggcttc tggctacttg gtggcgaggt 180
gaagagcttc tgcaggtgct gggggcggcg aacgcggcgg gaaagaaaaa aaaaaaaaaa 240
aaaaaanctn ggnaagtatt tttnan 267

<210> 793
<211> 453
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (68)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (347)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (443)
<223> n equals a,t,g, or c

<400> 793
ggggaaaagt tttggcagga gcgggagaat tctgcggacc tgcgggacgg cggcgggtggc 60
gccgtagnag ccggggacag gtcagtccga gacgagagaa gcggtcagtg ttgtacagtg 120
ttttgggcat gcacgtgata ctcacacagt ggcttctgct caccaacaga tgaagacaga 180
tgcaccaacg aggctgatgg gaaccatcct gtagaggtcc atctgcgttc agaccagac 240
gatgccagag ctatgactgg gcctgcaggt gtggcgccga ggggagatca gccatggagc 300
agccacagga ggaagccctt gaggtccggg aagaggagga gaaagangaa gtggcagaag 360
cagaaggagc cccagagctc aattggggac cacagcatgc acttccttcc agcagctaca 420
cagactctcc cggagctcct cgncaacctt atg 453

<210> 794
<211> 141
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (15)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (17)
<223> n equals a,t,g, or c

<220>
<221> misc feature

731

<222> (30)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (54)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (63)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (108)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (132)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (137)
<223> n equals a,t,g, or c

<400> 794
caacgaccgc gtttncntgg cacgggggtcn ggcccgccctg gccctgggaa agcntccac 60
ggngggggcg cgccggtctc ccggagcggg accgggtcgg aggatggncg agaatacaga 120
gcgacggtgg tngtggnngtg t 141

<210> 795
<211> 167
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (46)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (55)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (56)

732

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (61)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (93)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (112)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (146)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (149)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (164)

<223> n equals a,t,g, or c

<400> 795

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ggggacccac ccgaggggtcc agccaccagc cccctcacta atagcngcca ccccnncagc 60
ngcggcacag cagcagcgac gcagcggcga cantcagagc agggaggccg cnccacctgc 120
gggccggccg gagcgggcag ccccgangcnc cctccccggg cacncgc 167
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<210> 796

<211> 331

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (8)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (16)
<223> n equals a,t,g, or c

<220>
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<222> (20)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (34)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (41)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (54)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (56)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (58)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (79)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (88)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (90)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (91)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (101)
<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (114)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (115)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (116)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (123)
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<220>
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<223> n equals a,t,g, or c

<220>

<221> misc feature
<222> (125)
<223> n equals a,t,g, or c

<220>
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<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (131)
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<220>
<221> misc feature
<222> (132)
<223> n equals a,t,g, or c

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<220>
<221> misc feature
<222> (192)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (225)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (228)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (241)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (242)
<223> n equals a,t,g, or c

<220>
<221> misc feature

<222> (244)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (260)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (280)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (328)
<223> n equals a,t,g, or c

<400> 796
aattcggnan cacgcnacgn cataccgtgg cagnttctgt ntgagacgaa catncngnag 60
nctccactca gctaattgna caacatgngn nctacttctc nctnnctttt acannnacag 120
gannnnnggcc nnagttaata tatccngtgt acctcactgt ccaatatgaa aaccgtaaag 180
tgcccttatag gnattttgcgt aactaacaca ccctgggtca ttgancnta cttgctgaag 240
nngnaaaaga caggataagn tttcaatagt ggcataccan atgggacttt tgatgaaatg 300
aatatcaata ttttctgcaa ttccatgngc t 331

<210> 797
<211> 699
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (404)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (521)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (564)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (589)
<223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (597)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (598)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (635)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (643)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (657)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (678)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (695)
 <223> n equals a,t,g, or c

<400> 797
 gctccacctt actaccagac aaccttagcc aaaccattta cccaaataaa gtataggcga 60
 tagaaattga aacctggcgc aatagatata gtaccgcaag ggaaagatga aaaattataa 120
 ccaagcataa tatagcaagg actaaccctt ataccttctg cataatgaat taactagaaa 180
 taactttgca aggagagcca aagctaagac ccccgaaacc agacgagcta cctaagaaca 240
 gctaaaagag cacacccgtc tatgtagcaa aatagtggga agatttatag gtagaggcga 300
 caaacctacc gagcctggtg atagctggtt gtccaagata gaatcttagt tcaactttta 360
 atttgccac agaaccctct aaatccctt gtaaatttta ctgntagtcc aaagaggaac 420
 agctcttttg aactaggaa aaaaccttgt agagagagta aaaaatttta caccatagat 480
 aggcctaaaa gcagccacca attaagaaag cgttcaagct naacacccac tacctaaaaa 540
 aatcccaaac atataactga actnctacac ccaattgggc caatctatna ccctatnnaa 600
 gaactaatgg tagtataagt acatgaaaac cattnttctt cgnataagcc ttgcgtnaga 660
 attaaaacac tgaactgnac attaaacagc caatntcta 699

<210> 798
 <211> 138

738

<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (115)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (120)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (127)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (128)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (133)
<223> n equals a,t,g, or c

<400> 798
cccggcacag agtcgatgct caataaatgt gtgttgactg catgaatgac ctggaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaanccccc 120
ggggggnncc ccncccc 138

<210> 799
<211> 496
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (9)
<223> n equals a,t,g, or c

<220>
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<222> (443)

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<222> (485)

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<222> (490)

<223> n equals a,t,g, or c

<400> 799

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agcttgatc tgatatacgc actggattgt agaacttggt gctgattttg accttgatt 120
gaagttaact gttcccccttg gtatttggtt aataccctgt acatatcttt gagttcaacc 180
tttagtacgt gtggccttgg cacttcgtgg ctaaggtaag aacgtgcttg tggaagacaa 240
gtctgtggct tgggtgagtct gtgtggccag cagcctctga tctgtgcagg gtattaacgt 300
gtcaaggctg agtggttctgg ggaattctct agaggctggc aagaaccagt tggttttgtc 360
cttgcggggt ctgtcaaggg ttggaaatcc caagccgtag gacccagttc cctnccttaa 420
ccgaagtctt tggccaaaca cnngggccgt aactggcctt gagttggaac gggtgcataa 480
gccgnaaagn atcaac                                     496

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<210> 800

<211> 516

<212> DNA

<213> Homo sapiens

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<220>
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<222> (501)
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<400> 800

743

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cacaccaccc cttgccaaan tcatctgcct gctccccggg gggagangac cgccggcctc 120
tnctactagc ccaccagccc accagggana aaataancca tganangcng cgnccgccac 180
ccngtgtncn cantccccnc cttcccgntt cccttagaan cctgccgcgt cctatctcat 240
gacgctcatg gaaccncttt ctttgatctn ctntntctta tctccccctc tttntngttc 300
taaagaaaat cattttgatg caaggtcctg cctgnnatca natccgaagt gctcctgcag 360
tnaccctttn cctggcattt ctcttccacg cgacaagtct gctagtgaga tcttgcatga 420
ctcactttgt ttccaaaacc cggggctatt ttgcatctca agtttcctgg ggccctgcttc 480
ctgtgtncca cttaagggcn nctggggccaa gactgt 516

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<210> 801

<211> 284

<212> DNA

<213> Homo sapiens

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<222> (1)

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<220>

<221> misc feature

<222> (6)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (12)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (28)

<223> n equals a,t,g, or c

<400> 801

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cgaccttcgc gtttttatat atatagatat atatatagat atatatagat atatatatag 120
atatatatag atatatatat agatatatat agatatatat agatatatat agatatatatag 180
atatatatag atatatatag atatatagat atatatagat atatatagat atatagatat 240
atatagatat atagatatat atatatctgg ctcatgcatg aaaa 284

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<210> 802

<211> 153

<212> DNA

<213> Homo sapiens

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<220>
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<220>
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<222> (119)
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<222> (140)
<223> n equals a,t,g, or c

<220>
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<400> 802
cggacggctg tgtagcgcgt ggggtgtaaga cttgcccaag tcccanagca cctcacctcc 60
cgaagccacc atccccaccc tgtcttccac anccgcctga aagccacaat gagaatgant 120
cacactgagg cctngatgtn ctntaatcac ttg 153

<210> 803
<211> 383
<212> DNA
<213> Homo sapiens

<220>
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<222> (271)
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<220>
<221> misc feature
<222> (301)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (370)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (374)
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<220>
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<222> (375)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (383)
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<400> 803
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attgtgcctt tattttatga gccccagttt tctgggctta gtttaaaaaa aaaatcaagt 120
ctaaacattg catttagaaa gcttttggtc ttggataaaa agtcatacac tttaaaaaaa 180
aaaaaaaactt tttccaggaa aatatattga aatcatgctg ctgagcctct attttctttc 240
tttggatggt ttggattcag tattccttta nccataaatt tttagcattt aaaaattcac 300
nggatggtac attaaagccaa taaactggct ttaatggatt acccaaaaaa aaaaaaaaaa 360
aaaggggggn cgcnnacagag ggn 383

<210> 804
<211> 509
<212> DNA
<213> Homo sapiens

<220>
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<222> (94)
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<220>
<221> misc feature
<222> (397)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (399)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (401)
<223> n equals a,t,g, or c

<220>
<221> misc feature

746

<222> (434)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (478)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (501)
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<220>
<221> misc feature
<222> (504)
<223> n equals a,t,g, or c

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ctctggagct cagcacagcc ctggagcacc agnggtacat tacttttctt gaagacctca 120
agagttttgt caagagccag tagagcagac agatgctgaa agccatagtt tcatggcagg 180
ctttggccag tgaacaaatc ctactctgaa gctagacatg tgctttgaaa tgattatcat 240
cctaatatca tgggggaaaa aataccagat tttaaattata tgttttgtgc tctcatttat 300
ttatcatttt tttctgtaca aatctattat ttctaggttt ttgtattaca tgatagacat 360
aaattgggtt atctctcca ggcagtttgt cttttcnant nctccccctt caaccgtgtc 420
acaaagacca gacngtgtcg ggaaagtttt ttttctccgt attgttaaag gttccatnca 480
attaggttta ataaaggctt ntntccag 509

<210> 805
<211> 753
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (648)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (668)
<223> n equals a,t,g, or c

<220>
<221> misc feature

<222> (718)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (736)

<223> n equals a,t,g, or c

<400> 805

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ataggcgata gaaattgaaa cctggcgcaa tagatatagt accgcaaggg aaagatgaaa 120
aattataacc aagcataata tagcaaggac taacccttat accttctgca taatgaatta 180
actagaaata actttgcaag gagagccaaa gctaagaccc ccgaaaccag acgagctacc 240
taagaacagc taaaagagca caccctgtcta tgtagcaaaa tagtgggaag atttataggt 300
agaggcgaca aacctaccga gcctggtgat agctggttgt ccaagataga atcttagttc 360
aactttaaat ttgcccacag aacctcttaa atccccttgt aaatttaact gttagtccaa 420
agaggaacag ctctttggac actaggaaaa aaccttgtag agagagtaaa aaatttaaca 480
cccatagtag gcctaaaagc agccaccaat taagaaagcg ttcaagctca acaccacta 540
cctaaaaaat cccaacata taactgaact cctcacacc aattggacca atctatcacc 600
ctatagaaga actaatggta gtataagtaa catgaaaaca ttctcctncg cataagcctg 660
cgtcaganta aaacctgact gacaattaac agcccaattc tacaatcaaa caacaagnca 720
ttattaccct tactgncaac ccaaccaggc atg 753
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<210> 806

<211> 404

<212> DNA

<213> Homo sapiens

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<221> misc feature

<222> (11)

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<220>

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<222> (352)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (383)

<223> n equals a,t,g, or c

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<222> (396)

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<222> (398)

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<220>

<221> misc feature

<222> (403)

<223> n equals a,t,g, or c

<400> 806

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aaactaaagc tgaagaggta ctttccataa atacctccca ctgattgaat cagtgtcttt 120
aaagaaattt ctcaatcctt cagccggtga tagcacgttc ttaatgtctc tttttattgc 180
ctgtaatggt attgcagatc cacatctctc gctcaactgt taatgtctca acctccagag 240
gcacccacc cagcacactg tcagtaaagg ggcagaatga aacagtgaga gttaagggtg 300
caggaagaaa atttgcatgt ttgcaagtga ctagaatcag atagtaagtg gnggtgggtt 360
ttttttttta atcattatga aanagtggga agcttngnag gtna 404
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<210> 807

<211> 428

<212> DNA

<213> Homo sapiens

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<222> (17)

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<222> (20)

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<222> (33)

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<220>

<221> misc feature

<222> (89)

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<220>

<221> misc feature

<222> (164)

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<223> n equals a,t,g, or c

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<222> (258)
<223> n equals a,t,g, or c

<220>
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<222> (266)
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<222> (283)
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<222> (423)
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<400> 807

750

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aggcagatgc tcctctggtg ggaggggtgnt ggcccggcaa gattgaagga tgtgcagggc 120
ttcctctcag agccgccc aa actgccttga tgtgtggagg ggangaaga tgggtaaggg 180
ctcaggaagt tgctccanga acagtagctg atganctgcc cagagtgcct ggctccagcc 240
tgtacccttg gtatgccntg aacatntggt ttccccaccc aantgcggct aagtctcttt 300
ttccttggtat cagccaggcg aaattggggc tttgacaagg aattttctaa ggaaaccttg 360
ttaaccagac aaaacacaac caggggttaca ggggggtatgn aagggttttc tgncccngga 420
ggnttnag 428

<210> 808

<211> 403

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (2)

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<220>

<221> misc feature

<222> (34)

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<222> (62)

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<220>

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<222> (257)

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<220>

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<222> (258)

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<220>

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<222> (261)

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<220>

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<222> (265)
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<220>
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<220>
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<222> (342)
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<220>
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<220>
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<222> (365)
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<220>
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<222> (375)
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<400> 808
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cnccgctccg gggacagtgc caggngggga gtttgactgg ggcggtacac ctgtcaaacg 120
gtaacgcagg tgtcctaagg cgagctcagg gaggacagaa acctcccgtg gagcagaagg 180
gcaaaagctc gcttgatctt cattttcagt acgaatacag accgtgaaag ccgggcctca 240
cgatcctcct gaccttnncg ntttncagcn ggaggtgtca gaaaantnac cacagggata 300
actcgcttgt cgcggccaag cgttcatagc gacgtcgctt tnccangtnc gatgtcggat 360
cttcntatca ttgtnaagca gaattcacca agcgttggat tgt 403

<210> 809
<211> 583
<212> DNA
<213> Homo sapiens

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<220>
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<220>
<221> misc feature
<222> (421)
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<220>
<221> misc feature
<222> (423)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (435)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (440)
<223> n equals a,t,g, or c

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<220>
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<222> (472)
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<222> (478)
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<222> (481)
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<220>
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<221> misc feature
<222> (565)
<223> n equals a,t,g, or c

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<220>
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<220>
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tttgaagacc acttggtgtg ttcacaaaac cagaagtaat tacagggtgt tcctgaaaag 120
ccccatagtg attgagtctt caaaaccacc gattctgaga gcaaggaaga ttttggaaga 180
aaatctgact gtggattatg acaaagatta tcttttttct taagtaatct atttagatcg 240
ggctgactgt acaaatgact cctggaaaaa actcttcacc tagtctagaa taagggaggt 300
gggagaatga tgacttacct tgaagtcctt cccttgactg ccgcactgg ggcctgttct 360
gtgccctggg agcatnntgc ccagctaagt ggggttcagg cagtgggcag ctttcccaat 420
nantcgattt ccattncagn gganttaaaa ccagttggcc aaatttccaa gnccttgnaa 480
ntaaggantc catttaccaa cccgcggttt tgtggtcagt gccccaaagg ggtaggttga 540
agggggctta acaaacatgg aagtnggggg nanaagggat nan 583

<210> 810
<211> 272
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (33)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (43)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (123)
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<220>
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<222> (130)
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<220>
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<222> (163)
<223> n equals a,t,g, or c

<220>
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<222> (165)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (167)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (228)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (259)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (262)
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<220>
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<222> (265)
<223> n equals a,t,g, or c

<220>
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<223> n equals a,t,g, or c

<400> 810
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gtatacagat gaggggtgtcc gctgctgctt tccttcggaa tccagtgttt ccacagagat 120
tancctgtan cttatatattg acattcttca ctgtctgttg ttnancnacc gtagcttttt 180
accgttcaact tccccttcca actatgtcca gatgtgcagg ctccctccnct ctggactttc 240
tccaaaggca ctgaccctng gnctnnactt tg 272

<210> 811
<211> 300
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (8)
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<220>
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<222> (252)
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<220>
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cagatctttt taaaaagata cttctgtaac ttaagaaacc tgggcattta aatcatattt 120
tgtcttttagg taaaagcttt ggtttggtgt cgtgttttgt ttgtttcact tgtttccctc 180
ccagccccaac accttttggt ctctccgtga acttaccttt ccctttttct ttctcttttt 240
tttttttgga anattaatng ttncaataa aatttncatn gccattaaaa aaaaaaaaaa 300

<210> 812
<211> 478
<212> DNA
<213> Homo sapiens

<220>
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<222> (294)
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<222> (325)
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<220>
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<222> (445)
<223> n equals a,t,g, or c

<220>
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<222> (460)

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$\langle 220 \rangle$

<221> misc feature

$\langle 222 \rangle$ (468)

<223> n equals a,t,g, or c

<400> 812

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gccaccttac | taccagacaa | ccttagccaa | accatttacc | caaataaagt | ataggcgata | 60 |
| gaaattgaaa | cctggcgcaa | tagatatagt | accgcaagg | aaagatgaaa | aattatagcc | 120 |
| aagcataata | tagcaaggac | taacccttat | accttctgca | taatgaatta | actagaaata | 180 |
| actttgcaag | gagagccaaa | gctaagacc | ccgaaaccg | acgagctacc | tnagaacagc | 240 |
| tgaaagagca | caccggtcta | tgtagcaaaa | tagtggaag | atttataggt | tgangcgaca | 300 |
| aacctaccga | gcctggtgat | agctngttgt | tccaanattg | aatccttagt | tccactttta | 360 |
| atttggtccc | aaaaaccccc | taattccct | tggttaattt | taactgttng | tcccaaaaaa | 420 |
| ggaaccngct | ctttgggacc | cttanggaaa | aaaaccttgn | ttaaaaanaa | ttaaaaaa | 478 |

<210> 813

<211> 63

<212> DNA

<213> Homo sapiens

<220>

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<220>

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<222> (50)

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<220>

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<222> (53)

<223> n equals a,t,g, or c

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<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<400> 813

gcgcgcgtcc ttcagactgc ccggagagcg cgctctgcct gccgcctgnn tgnctgncnc 60
tga 63

758

<210> 814
<211> 73
<212> DNA
<213> Homo sapiens

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<220>
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<222> (58)
<223> n equals a,t,g, or c

<400> 814
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gagggtcctg ctg 73

<210> 815
<211> 102
<212> DNA
<213> Homo sapiens

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<222> (29)
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<220>
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<222> (93)
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<220>
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<222> (100)
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tctcctttgc ctggccggga gggccttggc ngncctcan cn 102

<210> 816
<211> 379
<212> DNA
<213> Homo sapiens

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<222> (340)
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<222> (348)
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<220>
<221> misc feature
<222> (358)
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<223> n equals a,t,g, or c

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<400> 816
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aggcgggcat aacacagcaa gacgagaaga ccctatggag ctttaattta ttaatgcaaa 120
cagtacctaa caaacccaca ggtcctaaac taccaaacct gcattaaaaa tttcggttgg 180

760

```
ggcgacctcg gagcagaacc caacctccga gcagtacatg ctaagacttc accagtcaaa 240
gcgaactact atactcaatt gatccaataa cttgaccaac ggaacaagtt accctaggga 300
taacagcgca atcctattct agagtccata tcaacaatan ggttttacnac ctcgatgnnn 360
ggatcaggac attccaatg                                     379
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<210> 817
<211> 500
<212> DNA
<213> Homo sapiens

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<220>
<221> misc feature
<222> (158)
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<220>
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<222> (185)
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<220>
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<222> (215)
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<220>
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<222> (238)
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<220>
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<220>

<221> misc feature
<222> (251)
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<220>
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<222> (259)
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<220>
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<220>
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<220>
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<220>
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<222> (350)
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<220>
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<220>
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<220>
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<220>
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<220>
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<222> (484)

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<400> 817

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cgcgttcgct gcctccttca gctccaggat gatcggccag aagacgctct actccttttt 120
ctccccacgc cccgccaaga agcgacangg ccccaagncc cgagccggcc gtcaagggga 180
ccgngtggtg tngggttgct naagaaagcg gaatncgggg ggcatcccag ccaagaangn 240
cccggtctgg naggagaanc tngggaacgc cggcctcctt ggncgctgaa ttnccgaaca 300
ttttggaacc ggattccaga ggaacaaagg gcccngggnc cttgnttaan aatncggggg 360
ccngnaaang ttncctcttg gggntttttg gaanaanaac ctgggaaaga aagcanccta 420
aggggggggn attttcggg gaaancgtta tttttaatca aagctaaatt ggggatatttn 480
tttncaaaaa ggaaaggaaa                               500
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<210> 818

<211> 329

<212> DNA

<213> Homo sapiens

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<221> misc feature

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<220>

<221> misc feature

<222> (45)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (52)

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<222> (148)

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<220>

<221> misc feature

<222> (159)

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<220>

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<220>

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<222> (183)

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<220>

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<222> (184)

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<220>

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<220>

<221> misc feature

<222> (209)

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<220>

<221> misc feature

<222> (239)

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<220>
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<220>
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 ctactaatg ggaacanaag ctggagctcc accngtagg cggncggtct agaactagtg 120
 tgatcccccg ggctgcagga attcggcncg agaggaaana gaaaccgtct gaactatgct 180
 gnnngccatc atnctnggcc tcatcgcnnt tccatcccta cgcattgctt acatagcana 240
 cgaggtgacg atgccnccct taccatcaag atcanttgnc caccaatggt acttgaacct 300
 acgagtacac cggaccaccn ggtggacta 329

<210> 819
 <211> 648
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (369)
 <223> n equals a,t,g, or c

<220>
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 <222> (518)
 <223> n equals a,t,g, or c

<220>
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 <222> (544)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature

766

<222> (547)
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<220>
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 <222> (565)
 <223> n equals a,t,g, or c

<220>
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 <222> (584)
 <223> n equals a,t,g, or c

<220>
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 <222> (626)
 <223> n equals a,t,g, or c

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 atctgttggt ctgtgggtcac agtgacctta gctacatagc agactttccc aaatgtattg 120
 attacaaata aacagttgtt acttagcaag acctgaaaat atgtctgcag gtttctcctt 180
 gaagcaaatg tgtgggatca ttgcatttcc agaaatctgc ctcccttcacc ctccgttgac 240
 agtatatgtc atgcctcact ttcttctagc tgagctttta atcattagag cttaaattgt 300
 cagatcggtc attgcctttc cagggttatt tagtaaagtt tggtgaaaac aaaaacgcct 360
 tttcttggtt ctttttttcag ttattttgaa ggccagcatc ctgattaaat gctgacacat 420
 taatgaatga ccagcaacag ctttcagctc ttaaaaagac acttatattt gaatttacat 480
 gctgggtacc tgggtccaat ggtggcaaaa ggccactntt cattaaaagg ggtcctccat 540
 ttctantccc caaggacttc ctcanttttc aaattgggaa gggnacctaa aaggggttac 600
 aattaaacc ctggggtaaa gggggnaaaa aaaaaaaaaa aaaaaaaaaa 648

<210> 820
 <211> 469
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (238)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (284)
 <223> n equals a,t,g, or c

<220>
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 <222> (293)
 <223> n equals a,t,g, or c

<220>
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<222> (308)
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<220>
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<222> (319)
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<220>
<221> misc feature
<222> (370)
<223> n equals a,t,g, or c

<220>
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<222> (396)
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<220>
<221> misc feature
<222> (421)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (428)
<223> n equals a,t,g, or c

<220>
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<222> (465)
<223> n equals a,t,g, or c

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cgatagaaat tgaaacctgg cgcaatagat atagtaccgc aagggaaga tgaaaaatta 120
taaccaagca taatatagca aggactaacc cctatacctt ctgcataatg aattaactag 180
aaataacttt gcaaggagag ccaaagctaa aacccccaat aaaccttgaa cagtgaanaa 240
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaacctcgag gtcnacggta tcnataacct 300
tgatatcnaa ttcggcacna gcaaccctca ttccccaacc cacgcgggag gctgcgcctg 360
caggacctgn ctgaccgatt ggtggatcct ctgaanatga acacgactca ccactgctca 420
ncgaggcntg cttgagcaaa atccgccaat tataaaaaaa aaacnctcc 469

<210> 821
<211> 432
<212> DNA
<213> Homo sapiens

<220>

768

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<220>
<221> misc feature
<222> (385)
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<220>
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<222> (419)
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<220>
<221> misc feature
<222> (422)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (425)
<223> n equals a,t,g, or c

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ttgcacgctc tttaagagtc tgcactggag gaactctgcc attaccagct cccttggtgc 120
agaaggaagg ggaaacatac atttattcat gccagtctgt tgcattgcagg ctttttggct 180
tcctaccttg caacaaaata attgcaccaa ctcttagtg ccgattccgc ccacagagag 240
tcctggagcc acagtctttt ttgctttgca ttgtaaggag agggactaaa gtgctagaga 300
ctatgtcgtc ttcctgagct aacgagagcg ctctgaact ggantcaact gctttcaggg 360
aaaaagaaaa aaaaaaaaaa aaaanccggg ggggggcccg gtaaccatt tccccctana 420
gnggnggggt tt 432

<210> 822
<211> 428
<212> DNA
<213> Homo sapiens

<220>
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<220>
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<220>
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<222> (382)
<223> n equals a,t,g, or c

<220>
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<222> (385)
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<220>
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<222> (425)
<223> n equals a,t,g, or c

<220>
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<222> (427)
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tcattagtga aagtgggtctt ttatgtcctc ccagcagaca gacatcaagg atgagttaac 120
caggagacta ctctgttgga ctgtggagct ctggaaggct tgggtgggagt gaatttgccc 180
acaccttaca attgtggcag gatccagaag agcctgtctt tttatatcca ttccttggat 240
gtcattgggc ctctccacc gatttcatta cggtgccacg catccatggg atctggggta 300
gtccggaaaa acaaaaggag ggnagacagc ctggtaatgg ataagatcct taccacagtt 360
ttcccanggg gaatacctta tnaanccttc aacttttttt tttcccttaa gaattaaaac 420
ggggnana 428

<210> 823
<211> 100
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (32)
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<220>
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<222> (54)
<223> n equals a,t,g, or c

<220>
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<222> (63)
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<223> n equals a,t,g, or c

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<221> misc feature

<222> (78)

<223> n equals a,t,g, or c

<400> 823

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agntgaccca ntctccgncc ctccctgtct gcagctggta 100
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<210> 824

<211> 173

<212> DNA

<213> Homo sapiens

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<222> (79)

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<220>

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<222> (111)

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<221> misc feature

<222> (117)

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<222> (156)

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<221> misc feature

<222> (165)

<223> n equals a,t,g, or c

<400> 824

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gcccccatcc cgggaggana tgaccaagaa acagtcagct gaactgcctg nttctanagg 120
tttctatccc acgaaatccc cttgaatttg gaaacnattg ggcanccgaa aaa 173
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<210> 825

<211> 341

<212> DNA

<213> Homo sapiens

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<220>
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<222> (313)
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<222> (317)
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<220>
<221> misc feature
<222> (335)
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<220>
<221> misc feature
<222> (339)
<223> n equals a,t,g, or c

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tataggcgat agaaattgaa acctggcgca atagatatag taccgcaagg ggaaagatga 120
aaaattataa ccaagcataa tatagcaagg actaacccct ataccttctg cataatgaat 180
taactagaaa taactttgca aggagagcca aagctaagac ccccgaaacc agaacgagct 240
accttagaac agcttaaaga gcacaccct ctatttttgc canaatagtg ggaaagattt 300
ataggttgaa ggnaacnaac ctaccgagcc tggtnaatnc t 341

<210> 826
<211> 492
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (337)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (416)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (446)

772

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (471)

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<221> misc feature

<222> (475)

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<220>

<221> misc feature

<222> (480)

<223> n equals a,t,g, or c

<400> 826

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ataggcgata gaaattgaaa cctggcgcaa tagatatagt accgcaaggg aaagatgaaa 120
aattataacc aagcataata tagcaaggac taacccttat accttctgca taatgaatta 180
actagaaata actttgcaag gagagccaaa gctaagaccc ccgaaaccag acgagctacc 240
taagaacagc taaaagagca caccctgcta tgtagcaaaa tagtggaag atttataggt 300
agaggcgaca aacctaccga gcctggtgat agctgngtgt ccaagataga atcttagttc 360
aactttaaat ttgccacag aaccctctaa atcccttgt aaatttaact gttagnccaa 420
agaggaacaa gctctttgga cactangaaa aaaccttgta tagagaggaa naaanatttn 480
acaaccata ct 492
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<210> 827

<211> 290

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (59)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (230)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (250)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (262)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (264)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (290)

<223> n equals a,t,g, or c

<400> 827

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ggtcgtgctc tcccggggccg ggtccgagcc gcgacgggcg aggggaggac gttcgtggng 60
aacgggaccg tccttctcgc tccgccccgc ggggggtccc tcgtctctcc tctccccgcc 120
cgccggcggt gcgtgtggga aggcgtgggg tgcggacccc ggcccgacct cgccgtcccg 180
cccgcgcct tctgcgtcgc ggggtgcgggc cggcggggtc ctctgacgcn gcagacagcc 240
ctcgtgtgtn cctccagtgg angncgactt gcgggaggta ctctacgan 290
```

<210> 828

<211> 420

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (149)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (334)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (382)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (396)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (403)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (405)

<223> n equals a,t,g, or c

<400> 828

```
gggtcgaccc acgcgtccgg cagcacggaa aaagaaggtc tcctccacga agcgacactg 60
agcgtgcacc aagggcttgg tctgcggggg ccttggagct cctgctcttc tcccgcacct 120
ccatggatgc actgctgccg agcagagcng cctctgccag gccccgccct gggattccta 180
gagactagct tcagttttgc tatttttttt aagtgggaga aggggtgggca gttatcactg 240
gggaagagag gaccggccac ctgtccagca tgggctccag agccttcctc tctcacaggg 300
cagagtcttg tcggcaaggc agcctcctgg ccantttctc tgctcatgtt tctggtttagc 360
agagttcaga gccaatgtt tnacttcttg gttgtncctg tgnangaagc ctttcaaaac 420
```

<210> 829

<211> 298

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (19)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (20)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (30)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (56)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (57)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (109)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (125)

<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (129)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (171)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (181)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (191)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (267)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (268)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (269)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (281)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (287)
<223> n equals a,t,g, or c

<400> 829
ttcagaaaaa acaatagtnn tgtgcctctn tcttctcaaa caatggatga cacaanncta 60
tggagagtga caaaatggtg acaggtagct ggggacctag gctatctcnc catgaagggt 120
gttcngctna ttgtatatct gtgtatgtag tgtaactata ttgtacaatg ngaagactgt 180
naactactat ntagggttgt tgcagattga aatttagttg tctcattggc tgtctgagga 240

agtgtggact tctatatata gatctannnt gaaaactgct ncatgantga aaaccaca 298

<210> 830

<211> 516

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (5)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (10)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (21)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (35)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (408)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (475)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (477)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (497)

<223> n equals a,t,g, or c

777

<220>
 <221> misc feature
 <222> (513)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (515)
 <223> n equals a,t,g, or c

<400> 830
 ncggnaactn ctcactatag ntgaaagctg gtacncctgc aggtaccggt ccggaattcc 60
 cgggggcatc cccttggtccc caagagaccc gacgcttgct tcatggccta cacgttcgag 120
 agagagtctt cgggagagga ggaggagtag ggccgcctcg gggctgggca tccggcccct 180
 gggggccaccc cttgtcagcc gggtaggttag gaaccgtaga ctgcgtcatc tcgcctgggt 240
 ttgtccgcat gttgtaatcg tgcaaataaa cgctcactcc gaattagcgg tgtatttctt 300
 gaagttaaatt attgtgtttg tgatactgaa gtatttgctt taattctaaa taaaaattta 360
 tattttactt ttttattgct ggtttaagat gattcagatt atccttgnac tttgaggaga 420
 agtttcttat ttggagcttt tggaaacagc ttaagctttt aacttggaat gatagnatt 480
 aatccccttc attggtntcc aaaagccaat aangng 516

<210> 831
 <211> 636
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc feature
 <222> (414)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (453)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (530)
 <223> n equals a,t,g, or c

<220>
 <221> misc feature
 <222> (617)
 <223> n equals a,t,g, or c

<400> 831
 ggaaaaaaat gagttccatt taaaattttg gcatatggca ttttctaact taggaagcca 60
 caatgttctt ggcccatcat gacattgggt agcatctaact gtaagtattg tgcttccaaa 120
 tcactttttg gtttttaaga atttcttgat actcttatag cctgccttca attttgatcc 180

778

```

tttattcttt ctatttgtca ggtgcacaag attaccttcc tgttttagcc ttctgtcttg 240
tcaccaacca ttcttacttg gtggccatgt acttgaaaaa aggccgcatg atctttctgg 300
ctccactcag tgtctaaggc accctgcttc ctttgcttgc atccacacaga ctatttcctt 360
catcctatatt actgcagcaa atctctcctt agttgatgag actgtgttta tctnccttta 420
aaaccctacc tatcctgaat ggtctgtcat tgnctgcctt taaaatcctt cctctttctt 480
cctcctctat tctctaaata atgatggggc ttaagttata cccaaagctn actttacaaa 540
atatttcctc aagactttgc agaaacacca acaaaatgcc atttaaaaaa ggggattttc 600
tttaaaggaa ctctaanaca ggcaagggtc tgatgt 636

```

<210> 832

<211> 466

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (421)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (443)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (446)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (453)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (466)

<223> n equals a,t,g, or c

<400> 832

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gatcagatta tgagttactg tttaaaagaa aaatgctggt tattcatgct gaggtgattc 60
agttccctcc ttcttacaga agtattttta ttcacccac actagaaatg cagcatcttt 120
gtggacgtct ttttcacaag cctccaaggc tccttagatt gggtcgttac taaaagtaca 180
ttaaaacact cttgtttatc gaagtatatt gatgtattct aaagctagta aacttcctta 240
acgtttaatt gccctacaga tgcttctctt gctgtgggtt ttcttttggt agtggtctga 300
aataattatt ttctgtttct attaatacat aagtgtattt tgcacaaaaa aattaacctg 360
gtcaaatagt gattacaaa atatatatta ataatcttgg gcaaattttt gccattttata 420
ngaaaacatt ttaacccac ggntangttc tanatttatt ctttcn 466

```

<210> 833

<211> 405

779

<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (237)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (278)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (335)
<223> n equals a,t,g, or c

<400> 833
ttttaattca acccagccat gcaatgccaa ataatagaat tgctccctac cagctgaaca 60
gggaggagtc tgtgcagttt ctgacacttg ttgttgaaca tggctaaata caatgggtat 120
cgctgagact aagttgtaaa aaattaacaa atgtgctgct tggttaaaat ggctacactc 180
atctgactca ttctttattc tatttttagtt ggtttgatc ttgcctaagg tgcgtantcc 240
aactcttggt attaccctcc taatagtcac actagtantc atactccctg gtgttatgta 300
ttctctaaaa gctttaaatg tctgcattgc aaccngccat caaatattga atgggctctc 360
ttttggctgg aattacaaac tcaaaaaatg tttctcagga aaaaa 405

<210> 834
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (277)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (332)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (354)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (359)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (390)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (400)
<223> n equals a,t,g, or c

<400> 834
gcaaaccac aggtcctaaa ctaccaaacc tgcattaaaa atttcggttg gggcgacctc 60
ggagcagaac ccaacctccg agcagtacat gctaagactt caccagtcaa agcgaactac 120
tatactcaat tgatccaata acttgaccaa cggaacaagt taccctaggg ataacagcgc 180
aatcctattc tagagtccat atcaacaata gggtttacga cctcgatgtt ggatcaggac 240
atcccgatgg tgcagccgct attaaagggt cgtttgntca acgattaaag tcctacgtga 300
tctgagttca gaccggagta atccaggtcg gnttctatct acttcaaatt cctncctgna 360
cgaaaggaca agagaaataa gggctacttn acaaagcgcn tt 402

<210> 835
<211> 121
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (1)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (4)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (40)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (77)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (100)
<223> n equals a,t,g, or c

<220>

<221> misc feature
<222> (110)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (117)
<223> n equals a,t,g, or c

<400> 835
nttnaaaaaa aaaaaaaaaa aaaaaaaaaa aagaaaaaan aaaaaaaaaa aaaaaaaaaa 60
aaaaagggcg gccgttntaa aggatccaag cttacgtacn cgtgcatgcn acgtcanagc 120
t 121

<210> 836
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (340)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (344)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (357)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (386)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (408)
<223> n equals a,t,g, or c

<400> 836
agtaagcctg ccagacacgc tgtggcggtt gcctgaagct agtgagtcgc ggcgccgcgc 60
acttgtggtt gggtcagtgc cgcgcgccgc tcggtcgtta ccgcgaggcg ctggtggcct 120
tcaggctgga cggcgcggtt cagccctggt ttgccggctt ctgggtcttt gaacagccgc 180
gatgtcgatc ttcaccccca ccaaccagat ccgcctaacc aatgtggccg tggtaggat 240
gaagcgcgcc aggaagcgct tcgaaatcgc ttgctacaga aacaagtcgt cggctggcgg 300
agggcttttg aaaaagactt gatgaatttt gcagaccan caangtttgt aaagttacca 360

aagtcagttt ccaaaaggaa attcancagg ggtttgaaa atgccaanga a 411

<210> 837

<211> 386

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (381)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (383)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (384)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (385)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (386)

<223> n equals a,t,g, or c

<400> 837

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gcggcagctc agcaagtggg ggaccaggcc acagaggcgg ggcagaaagc catggaccag 60
ctggccaaga ccaccaggga aaccatcgac aagactgcta accaggcctc tgacaccttc 120
tctgggatcg ggaaaaaatt cggcctcctg aaatgacagc agggagactt gggtcggcct 180
cctgaaatga tagcaggagg acttggtga ccccccttcc aggcgccatc tagcacagcc 240
tgggcctgat ctccgggcag ccaccacctc ctcggtctgc cccctcatta aaattcacgt 300
tcccaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 360
aaaaaaaaa aaaaaaaaaa ngnnnn 386
```

<210> 838

<211> 124

<212> DNA

<213> Homo sapiens

<400> 838

```
gctttcaata gatcgagcg agggagctgc tctgctacgt acgaaacccc gaccagaag 60
caggctcgtc acgaatggtt tagcgccagg ttccccacga acgtgcggtg cgtgacgggc 120
gagg 124
```

<210> 839
<211> 270
<212> DNA
<213> Homo sapiens

<220>
<221> misc feature
<222> (26)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (56)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (107)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (130)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (175)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (178)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (250)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (260)
<223> n equals a,t,g, or c

<220>
<221> misc feature
<222> (261)
<223> n equals a,t,g, or c

<400> 839

```
atctgggtgt ggttacaatg aaaatnagaa gcattattga tggattcgca taagcncaat 60
gtgatgtcct gcgccgttct gccccctctc ccttccaggg tgaggggnetg gggtgagggt 120
taatgttcgn accagtgtgt gctgttcccc tcaccctaac cctctcccca aaggncgnag 180
gggcccgggtt acccaattcg ccctatagtg agtcgtatta caattcactg gccgtcgttt 240
tacaagacgn agggaggagn ntgatgaaaa 270
```

<210> 840

<211> 430

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (210)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (262)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (263)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (348)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (369)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (390)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (395)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (409)

<223> n equals a,t,g, or c

785

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<400> 840
ctctacatca cgcgccccgac cttagctctc accatcgctc ttctactatg aacccccctc 60
cccataccca accccctggg caacctcaac ctaggcctcc tatttattct agccacctct 120
agcctagccg tttactcaat cctctgatca gggtgagcat caaactcaaa ctacgccctg 180
atcggcgcac tgcgagcagt agcccaaacn atctcatatg aagtcaccct agccatcatt 240
cctactatca acattactaa tnngttggt cctttaacct ctccaccctt atcacaacac 300
aagaacactc ctgaatatcc tgccatcata accctttggc catatatnat tatcttccac 360
actagggana acaacgaacc cccttcgaan cttgngaaag ggaatttcna ataatcttca 420
ggttcaaatt                                     430

```

<210> 841

<211> 650

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (519)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (555)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (564)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (573)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (589)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (634)

<223> n equals a,t,g, or c

<400> 841

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gccgtcatct actctaccat ctttgcaggc acactcatca cagcgctaag ctgcgactga 60
ttttttacct gagtaggcct agaaataaac atgctagctt ttattccagt tctaaccaaa 120
aaaataaacc ctcggtccac agaagctgcc atcaagtatt tcctcacgca agcaaccgca 180
tccataatcc ttctaatagc tatcctcttc aacaatatac tctccggaca atgaaccata 240
accaataata ccaatcaata ctcatcatta ataatcataa tggctatagc aataaaaacta 300

```

786

```

ggaatagccc cctttcactt ctgagtccca gaggttacct aaggcaccce tctgacatcc 360
ggcctgcttc ttctcacatg acaaaaaacta gcccccatct caatcatata ccaaattctct 420
ccctcactag acgtaagcct tctcctcact ctctcaatct tatccatcat agtaggcagt 480
tgaggggtgga ttaaaccaaa acccagctac gcaaaaatcnt agcatacttc ctcaattacc 540
cacataggat gaatnaatag cagnttctac cgnacaaccc ttacataanc atttctttaa 600
ttaactaatt atattaatcc taactactac ggantctact actaacttaa 650

```

<210> 842

<211> 509

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (438)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (455)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (462)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (468)

<223> n equals a,t,g, or c

<220>

<221> misc feature

<222> (482)

<223> n equals a,t,g, or c

<400> 842

```

gcctgtgtct gctaaaaaag aaaagaaagt ttcttgcctg ttcattcctg atgggcgggt 60
gtctgtctct gctcgaattg acagaaaagg attctgtgaa ggtgatgaga tttccatcca 120
tgctgacttt gagaatacat gttcccgaat tgtggtcccc aaagctgcca ttgtggcccg 180
ccacacttac cttgccaatg gccagaccaa ggtgctgact cagaagttgt catcagtcag 240
aggcaatcat attatctcag ggacatgcgc atcatggcgt ggcaagagcc ttcgggttca 300
gaagatcagg ccttctatcc tgggctgcaa catccttcga gttgaatatt ccttactgat 360
ctatgttagc gttcctggat ccaagaaggc catccttgac ctgcccctgg taattggcag 420
cagatcaggt ctaagcanca gaacatccag ctggncagcc cnaaccanct ctgaagatga 480
gntgggtaga tctgaacatc ctgataccc 509

```

<210> 843

<211> 158

<212> PRT

787

<213> Homo sapiens

<400> 843

Lys Arg Asp Trp Val Ile Pro Pro Ile Ser Cys Pro Glu Asn Glu Lys
1 5 10 15

Gly Pro Phe Pro Lys Asn Leu Val Gln Ile Lys Ser Asn Lys Asp Lys
20 25 30

Glu Gly Lys Val Phe Tyr Ser Ile Thr Gly Gln Gly Ala Asp Thr Pro
35 40 45

Pro Val Gly Val Phe Ile Ile Glu Arg Glu Thr Gly Trp Leu Lys Val
50 55 60

Thr Glu Pro Leu Asp Arg Glu Arg Ile Ala Thr Tyr Thr Leu Phe Ser
65 70 75 80

His Ala Val Ser Ser Asn Gly Asn Ala Val Glu Asp Pro Met Glu Ile
85 90 95

Leu Ile Thr Val Thr Asp Gln Asn Asp Asn Lys Pro Glu Phe Thr Gln
100 105 110

Glu Val Phe Lys Gly Ser Val Met Glu Gly Ala Leu Pro Gly Thr Ser
115 120 125

Val Met Glu Val Thr Ala Thr Asp Ala Asp Asp Gly Cys Gly Thr Pro
130 135 140

Thr Met Pro Pro Ser Leu Thr Pro Ser Ser Ala Gln Asp Pro
145 150 155

<210> 844

<211> 601

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

788

<221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (106)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (152)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (358)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (383)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 844
 Thr Glu Leu Leu Lys Ser Ala Ala Arg His Gly Thr Ala Glu Ser Ala
 1 5 10 15

 Pro Trp Pro Arg Gly Gln Gly Trp Gln Gln Trp Gln Gln Gln Trp Arg
 20 25 30

 Arg Arg Trp Xaa Ser Trp Arg Lys Asp Arg Ala Arg Thr Arg Arg Gln
 35 40 45

 Glu Glu Leu Ala Leu Ser Gln Glu Pro Lys Ser Ser Ser Arg Gly Xaa
 50 55 60

 Ser Pro Gly Ala Ser Pro Ala Ser Pro Thr Ser Gln Gln Phe Cys Cys
 65 70 75 80

 Phe Arg Leu Asp Gln Val Ile His Ser Asn Pro Ala Gly Ile Gln Gln
 85 90 95

 Ala Leu Ala Gln Leu Ser Xaa Arg Gln Xaa Ser Val Thr Ala Pro Gly
 100 105 110

 Gly His Pro Arg His Lys Pro Gly Pro Pro Gln Ala Pro Gln Gly Pro
 115 120 125

 Ser Pro Arg Pro Pro Thr Arg Tyr Glu Pro Gln Arg Val Asn Ser Gly
 130 135 140

789

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Leu | Ser | Ser | Asp | Pro | His | Phe | Xaa | Glu | Pro | Gly | Pro | Met | Val | Arg | Gly | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Val | Gly | Gly | Thr | Pro | Arg | Asp | Ser | Ala | Gly | Val | Ser | Pro | Phe | Pro | Pro | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Lys | Arg | Arg | Glu | Arg | Pro | Pro | Arg | Lys | Pro | Glu | Leu | Leu | Gln | Glu | Glu | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Ser | Leu | Pro | Pro | Pro | His | Ser | Ser | Gly | Phe | Leu | Gly | Ser | Lys | Pro | Glu | |
| | 195 | | | | | | 200 | | | | | 205 | | | | |
| Gly | Pro | Gly | Pro | Gln | Ala | Glu | Ser | Arg | Asp | Thr | Gly | Thr | Glu | Ala | Leu | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Thr | Pro | His | Ile | Trp | Asn | Arg | Leu | His | Thr | Ala | Thr | Ser | Arg | Lys | Ser | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Tyr | Arg | Pro | Ser | Ser | Met | Glu | Pro | Trp | Met | Glu | Pro | Leu | Ser | Pro | Phe | |
| | | | | 245 | | | | | 250 | | | | | | 255 | |
| Glu | Asp | Val | Ala | Gly | Thr | Glu | Met | Ser | Gln | Ser | Asp | Ser | Gly | Val | Asp | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Leu | Ser | Gly | Asp | Ser | Gln | Val | Ser | Ser | Gly | Pro | Cys | Ser | Gln | Arg | Ser | |
| | | 275 | | | | | 280 | | | | | | 285 | | | |
| Ser | Pro | Asp | Gly | Gly | Leu | Lys | Gly | Ala | Ala | Glu | Gly | Pro | Pro | Lys | Arg | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Pro | Gly | Gly | Ser | Ser | Pro | Leu | Asn | Ala | Val | Pro | Cys | Glu | Gly | Pro | Pro | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Gly | Ser | Glu | Pro | Pro | Arg | Arg | Pro | Pro | Pro | Ala | Pro | His | Asp | Gly | Asp | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Arg | Lys | Glu | Leu | Pro | Arg | Glu | Gln | Pro | Leu | Pro | Pro | Gly | Pro | Ile | Gly | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Thr | Glu | Arg | Ser | Gln | Xaa | Thr | Asp | Arg | Gly | Thr | Glu | Pro | Gly | Pro | Ile | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Arg | Pro | Ser | His | Arg | Pro | Gly | Pro | Pro | Val | Gln | Phe | Gly | Thr | Xaa | Asp | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Lys | Asp | Ser | Asp | Leu | Arg | Leu | Val | Val | Gly | Asp | Ser | Leu | Lys | Ala | Glu | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Lys | Glu | Leu | Thr | Ala | Ser | Val | Thr | Glu | Ala | Ile | Pro | Val | Ser | Arg | Asp | |
| | | | | 405 | | | | | 410 | | | | | | 415 | |

790

Trp Glu Leu Leu Pro Ser Ala Ala Ala Ser Ala Glu Pro Gln Ser Lys
 420 425 430
 Asn Leu Asp Ser Gly His Cys Val Pro Glu Pro Ser Ser Ser Gly Gln
 435 440 445
 Arg Leu Tyr Pro Glu Val Phe Tyr Gly Ser Ala Gly Pro Ser Ser Ser
 450 455 460
 Gln Ile Ser Gly Gly Ala Met Asp Ser Gln Leu His Pro Asn Ser Gly
 465 470 475 480
 Gly Phe Arg Pro Gly Thr Pro Ser Leu His Pro Tyr Arg Ser Gln Pro
 485 490 495
 Leu Tyr Leu Pro Pro Gly Pro Ala Pro Pro Ser Ala Leu Leu Ser Gly
 500 505 510
 Val Ala Leu Lys Gly Gln Phe Leu Asp Phe Ser Thr Met Gln Ala Thr
 515 520 525
 Glu Leu Gly Lys Leu Pro Ala Gly Gly Val Leu Tyr Pro Pro Pro Ser
 530 535 540
 Phe Leu Tyr Ser Pro Ala Phe Cys Pro Ser Pro Leu Pro Asp Thr Ser
 545 550 555 560
 Leu Leu Gln Val Arg Gln Asp Leu Pro Ser Pro Ser Asp Phe Tyr Ser
 565 570 575
 Thr Pro Leu Gln Pro Gly Gly Gln Ser Gly Phe Leu Pro Ser Gly Ala
 580 585 590
 Pro Ala Ser Arg Cys Phe Tyr Pro Trp
 595 600

<210> 845

<211> 67

<212> PRT

<213> Homo sapiens

<400> 845

Thr Gln Lys Thr Ser Ser Leu Leu Pro Ala Leu Ser Leu Gln Leu Pro
 1 5 10 15

Leu Leu Thr Arg Phe Ser Ile Met Cys Ser Val Lys Glu Glu Phe Trp
 20 25 30

791

Arg Val Gln Ser Ile Ile Thr Glu Leu Val Leu Lys Gly Glu Phe Gly
 35 40 45

Val Glu Glu Ala Met Lys Leu Ile Thr Gly Thr Glu Ala Lys Tyr Lys
 50 55 60

Ser Ile Asp
 65

<210> 846

<211> 146

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 846

Ser Gln Gly Pro Asp His Pro Ser Ser Gln Leu Gln Pro Leu Asn Xaa
 1 5 10 15

Ser Leu Ser His Leu Leu Val Pro Cys Leu Ser Ile Met Ser Leu Leu
 20 25 30

Asn Lys Pro Lys Ser Glu Met Thr Pro Glu Glu Leu Gln Lys Arg Glu
 35 40 45

Glu Glu Glu Phe Asn Thr Gly Pro Leu Ser Val Leu Thr Gln Ser Val
 50 55 60

Lys Asn Asn Thr Gln Val Leu Ile Asn Cys Arg Asn Asn Lys Lys Leu
 65 70 75 80

Leu Gly Arg Val Lys Ala Phe Asp Arg His Cys Asn Met Val Leu Glu
 85 90 95

Asn Val Lys Glu Met Trp Thr Glu Val Pro Lys Ser Gly Lys Gly Lys
 100 105 110

Lys Lys Ser Lys Pro Val Asn Lys Asp Arg Tyr Ile Ser Lys Met Phe
 115 120 125

Leu Arg Gly Asp Ser Val Ile Val Val Leu Arg Asn Pro Leu Ile Ala
 130 135 140

Gly Lys
 145

792

<210> 847
 <211> 184
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (8)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (179)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 847
 Ala Arg Met Ala Ala Asp Lys Xaa Pro Ala Ala Gly Pro Arg Ser Arg
 1 5 10 15
 Ala Ala Met Ala Gln Trp Arg Lys Lys Lys Gly Leu Arg Lys Arg Arg
 20 25 30
 Gly Ala Ala Ser Gln Ala Arg Gly Ser Asn Ser Glu Asp Gly Glu Phe
 35 40 45
 Glu Ile Gln Ala Glu Asp Asp Ala Arg Ala Arg Lys Leu Gly Pro Gly
 50 55 60
 Arg Pro Leu Pro Thr Phe Pro Thr Ser Glu Cys Thr Ser Asp Val Glu
 65 70 75 80
 Pro Asp Thr Arg Glu Met Val Arg Ala Gln Asn Lys Lys Lys Lys Lys
 85 90 95
 Ser Gly Gly Phe Gln Ser Met Gly Leu Ser Tyr Pro Val Phe Lys Gly
 100 105 110
 Ile Met Lys Lys Gly Tyr Lys Val Pro Thr Pro Ile Gln Arg Lys Thr
 115 120 125
 Ile Pro Val Ile Leu Asp Gly Lys Asp Val Val Ala Met Ala Arg Thr
 130 135 140
 Gly Ser Gly Lys Thr Ala Cys Phe Leu Leu Pro Met Phe Glu Arg Leu
 145 150 155 160
 Lys Thr His Ser Ala Gln Thr Gly Ala Arg Ala Ser Ser Ser Arg Arg
 165 170 175

Pro Glu Xaa Trp Pro Cys Arg Pro
180

<210> 848

<211> 160

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 848

Ala Arg Ala Ser Ser Glu Cys Ala Arg Cys Ala Ala Ala Val Arg Thr
1 5 10 15

Cys Arg Arg Arg His Arg His His Ala Gln Leu Arg Arg His Leu Glu
20 25 30

Asp Ala Xaa Ser Glu Asn Phe Asp Glu Leu Leu Lys Ala Leu Gly Val
35 40 45

Asn Ala Met Leu Arg Lys Val Ala Val Ala Ala Ala Ser Lys Pro His
50 55 60

Val Glu Ile Arg Gln Asp Gly Asp Gln Phe Tyr Ile Lys Thr Ser Thr
65 70 75 80

Thr Val Arg Thr Thr Glu Ile Asn Phe Lys Val Gly Glu Gly Phe Glu
85 90 95

Glu Glu Thr Val Asp Gly Arg Lys Cys Arg Ser Leu Ala Thr Trp Glu
100 105 110

Asn Glu Asn Lys Ile His Cys Thr Gln Thr Leu Leu Glu Gly Asp Gly
115 120 125

Pro Lys Thr Tyr Trp Thr Arg Glu Leu Ala Asn Asp Glu Leu Ile Leu
130 135 140

Thr Phe Gly Ala Asp Asp Val Val Cys Thr Arg Ile Tyr Val Arg Glu
145 150 155 160

794

<210> 849
<211> 75
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 849
Val Gln Asn Val Gly Tyr Gln Ser Lys His Cys Gly Ala Val Xaa Tyr
1 5 10 15
Ala Arg Leu Pro Cys Glu Met Ile Gln Asp Gln Asn Lys Ala Leu Asp
20 25 30
Cys Ser Lys Thr Gln Asn Ser Ser Arg Ala Glu Gly Gly Arg Leu Ile
35 40 45
Trp Xaa Glu Gly Pro Lys Tyr Lys Thr Asp Gly Leu Arg Leu Glu Thr
50 55 60
Arg Gly Leu Arg Trp Lys Ala His Val Pro Arg
65 70 75

<210> 850
<211> 383
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (299)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 850
Ser Thr His Ala Ser Ala His Ala Ser Val Ala Asn Glu Val Ile Lys
1 5 10 15
Cys Lys Ala Ala Val Ala Trp Glu Ala Gly Lys Pro Leu Ser Ile Glu
20 25 30

795

Glu Ile Glu Val Ala Pro Pro Lys Ala His Glu Val Arg Ile Lys Ile
 35 40 45
 Ile Ala Thr Ala Val Cys His Thr Asp Ala Tyr Thr Leu Ser Gly Ala
 50 55 60
 Asp Pro Glu Gly Cys Phe Pro Val Ile Leu Gly His Glu Gly Ala Gly
 65 70 75 80
 Ile Val Glu Ser Val Gly Glu Gly Val Thr Lys Leu Lys Ala Gly Asp
 85 90 95
 Thr Val Ile Pro Leu Tyr Ile Pro Gln Cys Gly Glu Cys Lys Phe Cys
 100 105 110
 Leu Asn Pro Lys Thr Asn Leu Cys Gln Lys Ile Arg Val Thr Gln Gly
 115 120 125
 Lys Gly Leu Met Pro Asp Gly Thr Ser Arg Phe Thr Cys Lys Gly Lys
 130 135 140
 Thr Ile Leu His Tyr Met Gly Thr Ser Thr Phe Ser Glu Tyr Thr Val
 145 150 155 160
 Val Ala Asp Ile Ser Val Ala Lys Ile Asp Pro Leu Ala Pro Leu Asp
 165 170 175
 Lys Val Cys Leu Leu Gly Cys Gly Ile Ser Thr Gly Tyr Gly Ala Ala
 180 185 190
 Val Asn Thr Ala Lys Leu Glu Pro Gly Ser Val Cys Ala Val Phe Gly
 195 200 205
 Leu Gly Gly Val Gly Leu Ala Val Ile Met Gly Cys Lys Val Ala Gly
 210 215 220
 Ala Ser Arg Ile Ile Gly Val Asp Ile Asn Lys Asp Lys Phe Ala Arg
 225 230 235 240
 Ala Lys Glu Phe Gly Ala Thr Glu Cys Ile Asn Pro Gln Asp Phe Ser
 245 250 255
 Lys Pro Ile Gln Glu Val Leu Ile Glu Met Thr Asp Gly Gly Val Asp
 260 265 270
 Tyr Ser Phe Glu Cys Ile Gly Asn Val Lys Val Met Arg Ala Ala Leu
 275 280 285
 Glu Ala Cys His Lys Gly Trp Gly Val Thr Xaa Val Val Gly Val Ala
 290 295 300

796

Ala Ser Gly Glu Glu Ile Ala Thr Arg Pro Phe Gln Leu Val Thr Gly
 305 310 315 320

Arg Thr Trp Lys Gly Thr Ala Phe Gly Gly Trp Lys Ser Val Glu Ser
 325 330 335

Val Pro Lys Leu Val Ser Glu Tyr Met Ser Lys Lys Ile Lys Val Asp
 340 345 350

Glu Phe Val Thr His Asn Leu Ser Phe Asp Glu Ile Asn Lys Ala Phe
 355 360 365

Glu Leu Met His Ser Gly Lys Ser Ile Arg Thr Val Val Lys Ile
 370 375 380

<210> 851

<211> 154

<212> PRT

<213> Homo sapiens

<400> 851

Ala Arg Ala Pro Arg Ala Thr Leu Asn Gly Pro Gly Ala Arg Gly Arg
 1 5 10 15

Val Gly Val Val Val Leu Arg Pro Arg Pro Arg Gly Leu Arg Phe Pro
 20 25 30

Trp Cys Pro Gly Arg Pro Ala Ser Gly Ala Val Ser Tyr Glu Ser Ala
 35 40 45

His Ala Ala Ser Val Arg Leu Thr Leu Arg Thr Met Glu Gly Gly Phe
 50 55 60

Gly Ser Asp Phe Gly Gly Ser Gly Ser Gly Lys Leu Asp Pro Gly Leu
 65 70 75 80

Ile Met Glu Gln Val Lys Val Gln Ile Ala Val Ala Asn Ala Gln Glu
 85 90 95

Leu Leu Gln Arg Met Thr Asp Lys Cys Phe Arg Lys Cys Ile Gly Lys
 100 105 110

Pro Gly Gly Ser Leu Asp Asn Ser Glu Gln Lys Cys Ile Ala Met Cys
 115 120 125

Met Asp Arg Tyr Met Asp Ala Trp Asn Thr Val Ser Arg Ala Tyr Asn
 130 135 140

Ser Arg Leu Gln Arg Glu Arg Ala Asn Met

797

145

150

<210> 852

<211> 396

<212> PRT

<213> Homo sapiens

<400> 852

Asp Ser Arg Val Asp Pro Arg Val Arg Ala Ile Ile Ala Lys Thr Phe
 1 5 10 15

Lys Gly Arg Gly Ile Thr Gly Val Glu Asp Lys Glu Ser Trp His Gly
 20 25 30

Lys Pro Leu Pro Lys Asn Met Ala Glu Gln Ile Ile Gln Glu Ile Tyr
 35 40 45

Ser Gln Ile Gln Ser Lys Lys Lys Ile Leu Ala Thr Pro Pro Gln Glu
 50 55 60

Asp Ala Pro Ser Val Asp Ile Ala Asn Ile Arg Met Pro Ser Leu Pro
 65 70 75 80

Ser Tyr Lys Val Gly Asp Lys Ile Ala Thr Arg Lys Ala Tyr Gly Gln
 85 90 95

Ala Leu Ala Lys Leu Gly His Ala Ser Asp Arg Ile Ile Ala Leu Asp
 100 105 110

Gly Asp Thr Lys Asn Ser Thr Phe Ser Glu Ile Phe Lys Lys Glu His
 115 120 125

Pro Asp Arg Phe Ile Glu Cys Tyr Ile Ala Glu Gln Asn Met Val Ser
 130 135 140

Ile Ala Val Gly Cys Ala Thr Arg Asn Arg Thr Val Pro Phe Cys Ser
 145 150 155 160

Thr Phe Ala Ala Phe Phe Thr Arg Ala Phe Asp Gln Ile Arg Met Ala
 165 170 175

Ala Ile Ser Glu Ser Asn Ile Asn Leu Cys Gly Ser His Cys Gly Val
 180 185 190

Ser Ile Gly Glu Asp Gly Pro Ser Gln Met Ala Leu Glu Asp Leu Ala
 195 200 205

Met Phe Arg Ser Val Pro Thr Ser Thr Val Phe Tyr Pro Ser Asp Gly
 210 215 220

798

Val Ala Thr Glu Lys Ala Val Glu Leu Ala Ala Asn Thr Lys Gly Ile
 225 230 235 240
 Cys Phe Ile Arg Thr Ser Arg Pro Glu Asn Ala Ile Ile Tyr Asn Asn
 245 250 255
 Asn Glu Asp Phe Gln Val Gly Gln Ala Lys Val Val Leu Lys Ser Lys
 260 265 270
 Asp Asp Gln Val Thr Val Ile Gly Ala Gly Val Thr Leu His Glu Ala
 275 280 285
 Leu Ala Ala Ala Glu Leu Leu Lys Lys Glu Lys Ile Asn Ile Arg Val
 290 295 300
 Leu Asp Pro Phe Thr Ile Lys Pro Leu Asp Arg Lys Leu Ile Leu Asp
 305 310 315 320
 Ser Ala Arg Ala Thr Lys Gly Arg Ile Leu Thr Val Glu Asp His Tyr
 325 330 335
 Tyr Glu Gly Gly Ile Gly Glu Ala Val Ser Ser Ala Val Val Gly Glu
 340 345 350
 Pro Gly Ile Thr Val Thr His Leu Ala Val Asn Arg Val Pro Arg Ser
 355 360 365
 Gly Lys Pro Ala Glu Leu Leu Lys Met Phe Gly Ile Asp Arg Asp Ala
 370 375 380
 Ile Ala Gln Ala Val Arg Gly Leu Ile Thr Lys Ala
 385 390 395

<210> 853

<211> 302

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (228)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 853

Ser Arg Leu Gly Leu Gln Ser Cys Gly Leu Ser Thr Gln Ala Ile Thr
 1 5 10 15

Leu Ser Glu Thr Ala Ala Ala Leu Asp Cys Ser Leu Pro Arg Leu His

800

290

295

300

<210> 854

<211> 237

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (235)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 854

Val Pro Ala Ser Phe Ala Ala Ala Ser Ala Val Leu Ser Ala Val Phe
 1 5 10 15

Pro Gln Glu Pro Ala Tyr Phe Leu Asn Met Glu Ser Val Val Arg Arg
 20 25 30

Cys Pro Phe Leu Ser Arg Val Pro Gln Ala Phe Leu Gln Lys Ala Gly
 35 40 45

Lys Ser Leu Leu Phe Tyr Ala Gln Asn Cys Pro Lys Met Met Glu Val
 50 55 60

Gly Ala Lys Pro Ala Pro Arg Ala Leu Ser Thr Ala Ala Val His Tyr
 65 70 75 80

Gln Gln Ile Lys Glu Thr Pro Pro Ala Ser Glu Lys Asp Lys Thr Ala
 85 90 95

Lys Ala Lys Val Gln Gln Thr Pro Asp Gly Ser Gln Gln Ser Pro Asp
 100 105 110

Gly Thr Gln Leu Pro Ser Gly His Pro Leu Pro Ala Thr Ser Gln Gly
 115 120 125

Thr Ala Ser Lys Cys Pro Phe Leu Ala Ala Gln Met Asn Gln Arg Gly
 130 135 140

Ser Ser Val Phe Cys Lys Ala Ser Leu Glu Leu Gln Glu Asp Val Gln
 145 150 155 160

Glu Met Asn Ala Val Arg Lys Glu Val Ala Glu Thr Ser Ala Gly Pro
 165 170 175

Ser Val Val Ser Val Lys Thr Asp Gly Gly Asp Pro Ser Gly Leu Leu
 180 185 190

801

Lys Asn Phe Gln Asp Ile Met Gln Lys Gln Arg Pro Glu Arg Val Ser
 195 200 205

His Leu Leu Gln Asp Asn Leu Pro Lys Ser Val Ser Thr Phe Gln Tyr
 210 215 220

Asp Arg Phe Phe Glu Lys Lys Ile Asp Glu Xaa Lys Glu
 225 230 235

<210> 855

<211> 272

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (202)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 855

Thr Pro Gly Ile Phe Thr Glu Gln Ser Met Ile Thr Phe Leu Pro Leu
 1 5 10 15

Leu Leu Gly Leu Ser Leu Gly Cys Thr Gly Ala Gly Gly Phe Val Ala
 20 25 30

His Val Glu Ser Thr Cys Leu Leu Asp Asp Ala Gly Thr Pro Lys Asp
 35 40 45

Phe Thr Tyr Cys Ile Ser Phe Asn Lys Asp Leu Leu Thr Cys Trp Asp
 50 55 60

Pro Glu Glu Asn Lys Met Ala Pro Cys Glu Phe Gly Val Leu Asn Ser
 65 70 75 80

Leu Ala Asn Val Leu Ser Gln His Leu Asn Gln Lys Asp Thr Leu Met
 85 90 95

Gln Arg Leu Arg Asn Gly Leu Gln Asn Cys Ala Thr His Thr Gln Pro
 100 105 110

Phe Trp Gly Ser Leu Thr Asn Arg Thr Arg Pro Pro Ser Val Gln Val
 115 120 125

Ala Lys Thr Thr Pro Phe Asn Thr Arg Glu Pro Val Met Leu Ala Cys
 130 135 140

Tyr Val Trp Gly Phe Tyr Pro Ala Glu Val Thr Ile Thr Trp Arg Lys
 145 150 155 160

803

His Glu Leu Gly Glu Pro Glu Phe Arg Tyr Thr Ala Gly Ile His Gly
 100 105 110

Asn Glu Val Leu Gly Arg Glu Leu Leu Leu Leu Leu Met Gln Tyr Leu
 115 120 125

Cys Arg Glu Tyr Arg Asp Gly Asn Pro Arg Val Arg Ser Trp Cys Arg
 130 135 140

Thr His Ala Ser Thr Trp Cys Pro His
 145 150

<210> 857

<211> 258

<212> PRT

<213> Homo sapiens

<400> 857

Cys Leu Ser Gln Lys Ala Val Arg Ala Pro Arg Phe Leu Arg Gly Leu
 1 5 10 15

Pro Ser Gly Arg Val Asn Cys Phe Leu Gln Ala Gly His Gly Ala Ser
 20 25 30

Arg Ser Gln Gly Ser Gly Leu Cys Gln Met Leu Lys Glu Gly Ala Lys
 35 40 45

His Phe Ser Gly Leu Glu Glu Ala Val Tyr Arg Asn Ile Gln Ala Cys
 50 55 60

Lys Glu Leu Ala Gln Thr Thr Arg Thr Ala Tyr Gly Pro Asn Gly Met
 65 70 75 80

Asn Lys Met Val Ile Asn His Leu Glu Lys Leu Phe Val Thr Asn Asp
 85 90 95

Ala Ala Thr Ile Leu Arg Glu Leu Glu Val Gln His Pro Ala Ala Lys
 100 105 110

Met Ile Val Met Ala Ser His Met Gln Glu Gln Glu Val Gly Asp Gly
 115 120 125

Thr Asn Phe Val Leu Val Phe Ala Gly Ala Leu Leu Glu Leu Ala Glu
 130 135 140

Glu Leu Leu Arg Ile Gly Leu Ser Val Ser Glu Val Ile Glu Gly Tyr
 145 150 155 160

Glu Ile Ala Cys Arg Lys Ala His Glu Ile Leu Pro Asn Leu Val Cys

804

165 170 175
 Cys Ser Ala Lys Asn Leu Arg Asp Ile Asp Glu Val Ser Ser Leu Leu
 180 185 190
 Arg Thr Ser Ile Met Ser Lys Gln Tyr Gly Asn Glu Val Phe Leu Ala
 195 200 205
 Lys Leu Ile Ala Gln Ala Cys Val Ser Ile Phe Pro Asp Ser Gly His
 210 215 220
 Phe Asn Val Asp Asn Ile Arg Val Cys Lys Ile Leu Gly Ser Gly Ile
 225 230 235 240
 Ser Ser Ser Ser Val Leu His Gly Met Val Phe Lys Lys Glu Thr Glu
 245 250 255
 Val Met

<210> 858

<211> 143

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 858

Pro Asp Ser Leu Pro Pro Pro Ser Pro Arg Leu Pro Ala Xaa Gly Pro
 1 5 10 15

Glu Phe Pro Gly Arg Pro Thr Arg Pro Glu Arg Ser Pro Ser Leu Gly
 20 25 30

Ile Pro Lys Cys Phe His Ser Val Ile Arg Thr Glu His Arg Gly Leu
 35 40 45

Thr Met Glu Phe Gly Leu Ser Trp Ile Phe Leu Ala Ala Ile Leu Lys
 50 55 60

Gly Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | 70 | | | | 75 | | | | 80 | | | |
| Lys | Pro | Gly | Gly | Ser | Leu | Arg | Leu | Ser | Cys | Ala | Ala | Ser | Gly | Phe | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Ser | Asn | Ala | Trp | Met | Ser | Trp | Val | Arg | Gln | Ala | Pro | Gly | Lys | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Glu | Trp | Val | Gly | Arg | Ile | Lys | Ser | Lys | Thr | Asp | Gly | Gly | Thr | Thr |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asp | Tyr | Ala | Ala | Pro | Val | Xaa | Arg | Gln | Ile | His | His | Leu | Lys | Arg | |
| | | | 130 | | | | 135 | | | | | 140 | | | |

Ala Ser Val Leu His Asn Leu Lys Glu Arg Tyr Tyr Ser Gly Leu Ile

806

100 105 110
Tyr Val Ser Gly Cys Arg Gly Thr Pro Gln Ala Gly Ser Glu Gly Ser
115 120 125
Glu Val Gly Xaa Xaa Ala Gly
130 135

<210> 860
<211> 52
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 860
Ala Xaa Leu Ile Lys Thr Arg Val Leu Ile Tyr Asn Lys Ser Asn Phe
1 5 10 15
Ser Leu Ser Leu Gly Thr Ser Asn Cys Thr Pro Gln Ile Thr Asp Thr
20 25 30
Ser Glu Phe Phe Met Val Lys Lys Ala Pro Thr Leu Thr Tyr Lys Cys
35 40 45
Gly Pro Arg Asn
50

<210> 861
<211> 321
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 861
Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala Leu Gly Ser
1 5 10 15
Thr Xaa Pro Pro Val His Asn Val Thr Ser Ala Ser Gly Ser Ala Ser
20 25 30

807

Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala Arg Ala Thr
 35 40 45
 Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro Ser His His
 50 55 60
 Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys Thr Asp Ala
 65 70 75 80
 Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser Ser Asn His
 85 90 95
 Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe Phe Leu Ser
 100 105 110
 Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp Pro Ser
 115 120 125
 Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met Phe Leu
 130 135 140
 Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile Lys Phe
 145 150 155 160
 Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg Glu Gly
 165 170 175
 Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr Lys Thr
 180 185 190
 Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser Val Ser
 195 200 205
 Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val Pro Gly
 210 215 220
 Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala Leu Ala
 225 230 235 240
 Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg Lys Asn
 245 250 255
 Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His Pro Met
 260 265 270
 Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro Pro Ser
 275 280 285
 Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn Gly Gly
 290 295 300

808

Ser Ser Leu Ser Tyr Thr Asn Pro Ala Val Ala Ala Thr Ser Ala Asn
 305 310 315 320

Leu

<210> 862

<211> 327

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (307)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 862

Phe Gly Thr Ser Leu Thr Gln Val Leu Leu Gly Ala Gly Glu Asn Thr
 1 5 10 15

Lys Thr Asn Leu Glu Ser Ile Leu Ser Tyr Pro Lys Asp Phe Thr Cys
 20 25 30

Val His Gln Ala Leu Lys Gly Phe Thr Thr Lys Gly Val Thr Ser Val
 35 40 45

Ser Gln Ile Phe His Ser Pro Asp Leu Ala Ile Arg Asp Thr Phe Val
 50 55 60

Asn Ala Ser Arg Thr Leu Tyr Ser Ser Ser Pro Arg Val Leu Ser Asn
 65 70 75 80

Asn Ser Asp Ala Asn Leu Glu Leu Ile Asn Thr Trp Val Ala Lys Asn
 85 90 95

Thr Asn Asn Lys Ile Ser Arg Leu Leu Asp Ser Leu Pro Ser Asp Thr
 100 105 110

Arg Leu Val Leu Leu Asn Ala Ile Tyr Leu Ser Ala Lys Trp Lys Thr
 115 120 125

Thr Phe Asp Pro Lys Lys Thr Arg Met Glu Pro Phe His Phe Lys Asn
 130 135 140

Ser Val Ile Lys Val Pro Met Met Asn Ser Lys Lys Tyr Pro Val Ala
 145 150 155 160

His Phe Ile Asp Gln Thr Leu Lys Ala Lys Val Gly Gln Leu Gln Leu

809

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Ser His Asn Leu Ser Leu Val Ile Leu Val Pro Gln Asn Leu Lys His | | | | | |
| | 180 | | 185 | | 190 |
| Arg Leu Glu Asp Met Glu Gln Ala Leu Ser Pro Ser Val Phe Lys Ala | | | | | |
| | 195 | | 200 | | 205 |
| Ile Met Glu Lys Leu Glu Met Ser Lys Phe Gln Pro Thr Leu Leu Thr | | | | | |
| | 210 | | 215 | | 220 |
| Leu Pro Arg Ile Lys Val Thr Thr Ser Gln Asp Met Leu Ser Ile Met | | | | | |
| | 225 | | 230 | | 240 |
| Glu Lys Leu Glu Phe Phe Asp Phe Ser Tyr Asp Leu Asn Leu Cys Gly | | | | | |
| | 245 | | 250 | | 255 |
| Leu Thr Glu Asp Pro Asp Leu Gln Val Ser Ala Met Gln His Gln Thr | | | | | |
| | 260 | | 265 | | 270 |
| Val Leu Glu Leu Thr Glu Thr Gly Val Glu Ala Ala Ala Ala Ser Ala | | | | | |
| | 275 | | 280 | | 285 |
| Ile Ser Val Ala Arg Thr Leu Leu Val Phe Glu Val Gln Gln Pro Phe | | | | | |
| | 290 | | 295 | | 300 |
| Leu Phe Xaa Leu Trp Asp Gln Gln His Lys Phe Pro Val Phe Met Gly | | | | | |
| | 305 | | 310 | | 320 |
| Arg Val Tyr Asp Pro Arg Ala | | | | | |
| | 325 | | | | |

<210> 863

<211> 86

<212> PRT

<213> Homo sapiens

<400> 863

| | | | | | |
|---|----|---|----|----|----|
| Tyr Tyr Ile Val His Leu Lys Leu Thr Glu Arg Val Asn Leu Lys Cys | | | | | |
| 1 | | 5 | | 10 | 15 |
| Ser His His Thr Asn Pro Lys Val Thr Met Phe Ser Pro His Lys Pro | | | | | |
| | 20 | | 25 | | 30 |
| Lys Gly Asn Tyr Val Leu Ile Ser Leu Ile Val Val Thr Ile Ser Gln | | | | | |
| | 35 | | 40 | | 45 |
| Cys Ile His Leu Pro Lys His Tyr Val Val Tyr Leu Glu Tyr Ile Ile | | | | | |
| | 50 | | 55 | | 60 |

810

Leu Phe Ile Asn Tyr Thr Ser Ile Lys Leu Lys Glu Gly Ile Thr Asn
 65 70 75 80

Ser His Lys Ile Gln Ile
 85

<210> 864

<211> 130

<212> PRT

<213> Homo sapiens

<400> 864

Leu Thr Gln Gln Gln Pro Ala Thr Gly Pro Gln Pro Ser Leu Gly
 1 5 10 15

Val Ser Phe Gly Thr Pro Phe Gly Ser Gly Ile Gly Thr Gly Leu Gln
 20 25 30

Ser Ser Gly Leu Gly Ser Ser Asn Leu Gly Gly Phe Gly Thr Ser Ser
 35 40 45

Gly Phe Gly Cys Ser Thr Thr Gly Ala Ser Thr Phe Gly Phe Gly Thr
 50 55 60

Thr Asn Lys Pro Ser Gly Ser Leu Ser Ala Gly Phe Gly Ser Ser Ser
 65 70 75 80

Thr Ser Gly Phe Asn Phe Ser Asn Pro Gly Ile Thr Ala Ser Ala Gly
 85 90 95

Leu Thr Phe Gly Val Ser Asn Pro Ala Ser Ala Gly Phe Gly Thr Gly
 100 105 110

Gly Gln Leu Leu Gln Leu Lys Lys Pro Pro Ala Gly Asn Lys Arg Gly
 115 120 125

Lys Arg
 130

<210> 865

<211> 78

<212> PRT

<213> Homo sapiens

<400> 865

Ser Glu Trp Lys Ile Lys Gly Pro Ser Ser Pro Leu Ala Ser Leu Pro

811

```

      1             5             10             15
Gly Arg Arg His Gly Gly Ser Ser Ala Thr Gly Ala Cys Gly Glu Ala
      20             25             30
Met Ala Ala Ala Glu Gly Ser Ser Gly Pro Ala Gly Leu Thr Leu Gly
      35             40             45
Arg Ser Phe Ser Asn Tyr Arg Pro Phe Glu Pro Gln Ala Leu Gly Leu
      50             55             60
Ser Pro Ser Trp Arg Leu Thr Gly Phe Ser Gly Met Lys Gly
      65             70             75

```

<210> 866

<211> 529

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (517)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 866

```

Pro Pro Pro Glu Pro Arg Ala Xaa Met Ala Glu Asn Pro Ser Leu Glu
  1             5             10             15
Asn His Arg Ile Lys Ser Phe Lys Asn Lys Gly Arg Asp Val Glu Thr
      20             25             30
Met Arg Arg His Arg Asn Glu Val Thr Val Glu Leu Arg Lys Asn Lys
      35             40             45
Arg Asp Glu His Leu Leu Lys Lys Arg Asn Val Pro Gln Glu Glu Ser
      50             55             60
Leu Glu Asp Ser Asp Val Asp Ala Asp Phe Lys Ala Gln Asn Val Thr
      65             70             75             80
Leu Glu Ala Ile Leu Gln Asn Ala Thr Ser Asp Asn Pro Val Val Gln
      85             90             95
Leu Ser Ala Val Gln Ala Ala Arg Lys Leu Leu Ser Ser Asp Arg Asn

```

812

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Pro Pro Ile Asp Asp Leu Ile Lys Ser Gly Ile Leu Pro Ile Leu Val | | |
| 115 | 120 | 125 |
| Lys Cys Leu Glu Arg Asp Asp Asn Pro Ser Leu Gln Phe Glu Ala Ala | | |
| 130 | 135 | 140 |
| Trp Ala Leu Thr Asn Ile Ala Ser Gly Thr Ser Ala Gln Thr Gln Ala | | |
| 145 | 150 | 155 |
| Val Val Gln Ser Asn Ala Val Pro Leu Phe Leu Arg Leu Leu Arg Ser | | |
| | 165 | 170 |
| Pro His Gln Asn Val Cys Glu Gln Ala Val Trp Ala Leu Gly Asn Ile | | |
| | 180 | 185 |
| Ile Gly Asp Gly Pro Gln Cys Arg Asp Tyr Val Ile Ser Leu Gly Val | | |
| | 195 | 200 |
| Val Lys Pro Leu Leu Ser Phe Ile Ser Pro Ser Ile Pro Ile Thr Phe | | |
| | 210 | 215 |
| Leu Arg Asn Val Thr Trp Val Ile Val Asn Leu Cys Arg Asn Lys Asp | | |
| | 225 | 230 |
| Pro Pro Pro Pro Met Glu Thr Val Gln Glu Ile Leu Pro Ala Leu Cys | | |
| | 245 | 250 |
| Val Leu Ile Tyr His Thr Asp Ile Asn Ile Leu Val Asp Thr Val Trp | | |
| | 260 | 265 |
| Ala Leu Ser Tyr Leu Thr Asp Gly Gly Asn Glu Gln Ile Gln Met Val | | |
| | 275 | 280 |
| Ile Asp Ser Gly Val Val Pro Phe Leu Val Pro Leu Leu Ser His Gln | | |
| | 290 | 295 |
| Glu Val Lys Val Gln Thr Ala Ala Leu Arg Ala Val Gly Asn Ile Val | | |
| | 305 | 310 |
| Thr Gly Thr Asp Glu Gln Thr Gln Val Val Leu Asn Cys Asp Val Leu | | |
| | 325 | 330 |
| Ser His Phe Pro Asn Leu Leu Ser His Pro Lys Glu Lys Ile Asn Lys | | |
| | 340 | 345 |
| Glu Ala Val Trp Phe Leu Ser Asn Ile Thr Ala Gly Asn Gln Gln Gln | | |
| | 355 | 360 |
| Val Gln Ala Val Ile Asp Ala Gly Leu Ile Pro Met Ile Ile His Gln | | |

813

370 375 380
 Leu Ala Lys Gly Asp Phe Gly Thr Gln Lys Glu Ala Ala Trp Ala Ile
 385 390 395 400
 Ser Asn Leu Thr Ile Ser Gly Arg Lys Asp Gln Val Glu Tyr Leu Val
 405 410 415
 Gln Gln Asn Val Ile Pro Pro Phe Cys Asn Leu Leu Ser Val Lys Asp
 420 425 430
 Ser Gln Val Val Gln Val Val Leu Asp Gly Leu Lys Asn Ile Leu Ile
 435 440 445
 Met Ala Gly Asp Glu Ala Ser Thr Ile Ala Glu Ile Ile Glu Glu Cys
 450 455 460
 Gly Gly Leu Glu Lys Ile Glu Val Leu Gln Gln His Glu Asn Glu Asp
 465 470 475 480
 Ile Tyr Lys Leu Ala Phe Glu Ile Ile Asp Gln Tyr Phe Ser Gly Asp
 485 490 495
 Asp Ile Asp Glu Asp Pro Cys Leu Ile Pro Glu Ala Thr Gln Gly Gly
 500 505 510
 Thr Tyr Asn Phe Xaa Pro Thr Ala Asn Leu Gln Thr Lys Glu Phe Asn
 515 520 525

Phe

<210> 867
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 867
 Arg Pro Gly Pro Val Arg Arg Arg Gly Lys Val Glu Leu Ile Lys Phe
 1 5 10 15
 Val Arg Val Gln Trp Arg Arg Pro Gln Val Glu Trp Arg Arg Arg Arg
 20 25 30
 Trp Gly Pro Gly Pro Gly Ala Ser Met Ala Gly Ser Glu Glu Leu Gly
 35 40 45
 Leu Arg Glu Asp Thr Leu Arg Val Leu Ala Ala Phe Leu Arg Arg Gly
 50 55 60

814

Glu Ala Ala Gly Ser Pro Val Pro Thr Pro Pro Arg Ser Pro Ala Gln
 65 70 75 80

Glu Glu Pro Thr Asp Phe Leu Ser Arg Leu Arg Arg Cys Leu Pro Cys
 85 90 95

Ser Leu Gly Arg Gly Ala Ala Pro Ser Glu Ser Pro Arg Pro Cys Ser
 100 105 110

Leu Pro Ile Arg Pro Cys Tyr Gly Leu Glu Pro Gly Pro Ala Thr Pro
 115 120 125

Asp Phe Tyr Ala Leu Val Ala Gln Arg Leu Glu Gln Leu Val Gln Glu
 130 135 140

Gln Leu Lys Ser Pro Pro Ser Pro Glu Leu Gln Gly Pro Pro Ser Thr
 145 150 155 160

Glu Lys Glu Ala Ile Leu Arg Arg Leu Val Ala Leu Leu Glu Glu Glu
 165 170 175

Ala Glu Val Ile Asn Gln Lys Leu Ala Ser Asp Pro Ala Leu Arg Thr
 180 185 190

Ser Trp Ser Ala Cys Pro Pro Thr Leu Ser Pro Ala Trp Trp Ser Cys
 195 200 205

Ser Val Ala Gly Met Thr Ala Leu Ala Gln Ala Glu His Ala Pro Gly
 210 215 220

Pro Arg Leu Leu Pro Arg Ser Pro Trp Pro Ala Trp Pro
 225 230 235

<210> 868

<211> 196

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

815

<400> 868

```

Leu Ser Val Ser Ala Xaa Ala Ala Xaa Val Ala Ala Ala Ala Ile His
 1             5             10             15

Ser Asp Ser Ala Ala Ala Pro Gly Gly Gly Gly Ala Ala Arg Asp Phe
          20             25             30

Phe Phe Phe Gln Thr Asp Arg Gly Ala Ala Ala Asp Met Ser Thr Pro
      35             40             45

Ala Arg Arg Arg Leu Met Arg Asp Phe Lys Arg Leu Gln Glu Asp Pro
      50             55             60

Pro Val Gly Val Ser Gly Ala Pro Ser Glu Asn Asn Ile Met Gln Trp
      65             70             75             80

Asn Ala Val Ile Phe Gly Pro Glu Gly Thr Pro Phe Glu Asp Gly Thr
          85             90             95

Phe Lys Leu Val Ile Glu Phe Ser Glu Glu Tyr Pro Asn Lys Pro Pro
          100             105             110

Thr Val Arg Phe Leu Ser Lys Met Phe His Pro Asn Val Tyr Ala Asp
          115             120             125

Gly Ser Ile Cys Leu Asp Ile Leu Gln Asn Arg Trp Ser Pro Thr Tyr
      130             135             140

Asp Val Ser Ser Ile Leu Thr Ser Ile Gln Ser Leu Leu Asp Glu Pro
      145             150             155             160

Asn Pro Asn Ser Pro Ala Asn Ser Gln Ala Ala Gln Leu Tyr Gln Glu
          165             170             175

Asn Lys Arg Glu Tyr Glu Lys Arg Val Ser Ala Ile Val Glu Gln Ser
          180             185             190

Trp Asn Asp Ser
          195

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<210> 869

<211> 544

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

816

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 869

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asp | Ala | Trp | Val | Ala | Xaa | Ala | Xaa | Ala | Ser | Ser | Gly | Leu | Val | Val |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Pro | Thr | Ser | Ala | Val | Pro | Ala | Glu | Pro | Arg | Pro | Phe | Arg | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Pro | His | Leu | Ala | Ala | Met | Arg | Leu | Arg | Arg | Leu | Ala | Leu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Val | Ala | Leu | Leu | Leu | Ala | Ala | Ala | Arg | Leu | Ala | Ala | Ala | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Leu | Glu | Leu | Thr | Asp | Asp | Asn | Phe | Glu | Ser | Arg | Ile | Ser | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Ser | Ala | Gly | Leu | Met | Leu | Val | Glu | Phe | Phe | Ala | Pro | Trp | Cys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | His | Cys | Lys | Arg | Leu | Ala | Pro | Glu | Tyr | Glu | Ala | Ala | Ala | Thr | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Gly | Ile | Val | Pro | Leu | Ala | Lys | Val | Asp | Cys | Thr | Ala | Asn | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Thr | Cys | Asn | Lys | Tyr | Gly | Val | Ser | Gly | Tyr | Pro | Thr | Leu | Lys | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Asp | Gly | Glu | Glu | Ala | Gly | Ala | Tyr | Asp | Gly | Pro | Arg | Thr | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Ile | Val | Ser | His | Leu | Lys | Lys | Gln | Ala | Gly | Pro | Ala | Ser | Val |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Arg | Thr | Glu | Glu | Glu | Phe | Lys | Lys | Phe | Ile | Ser | Asp | Lys | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Ile | Val | Gly | Phe | Phe | Asp | Asp | Ser | Phe | Ser | Glu | Ala | His | Ser |
| | | | 195 | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Leu | Lys | Ala | Ala | Ser | Asn | Leu | Arg | Asp | Asn | Tyr | Arg | Phe | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Thr | Asn | Val | Glu | Ser | Leu | Val | Asn | Glu | Tyr | Asp | Asp | Asn | Gly | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Ile | Leu | Phe | Arg | Pro | Ser | His | Leu | Thr | Asn | Lys | Phe | Glu | Asp | 245 | 250 | 255 | |
| Lys | Thr | Val | Ala | Tyr | Thr | Glu | Gln | Lys | Met | Thr | Ser | Gly | Lys | Ile | Lys | 260 | 265 | 270 | |
| Lys | Phe | Ile | Gln | Glu | Asn | Ile | Phe | Gly | Ile | Cys | Pro | His | Met | Thr | Glu | 275 | 280 | 285 | |
| Asp | Asn | Lys | Asp | Leu | Ile | Gln | Gly | Lys | Asp | Leu | Leu | Ile | Ala | Tyr | Tyr | 290 | 295 | 300 | |
| Asp | Val | Asp | Tyr | Glu | Lys | Asn | Ala | Lys | Gly | Ser | Asn | Tyr | Trp | Arg | Asn | 305 | 310 | 315 | 320 |
| Arg | Val | Met | Met | Val | Ala | Lys | Lys | Phe | Leu | Asp | Ala | Gly | His | Lys | Leu | 325 | 330 | 335 | |
| Asn | Phe | Ala | Val | Ala | Ser | Arg | Lys | Thr | Phe | Ser | His | Glu | Leu | Ser | Asp | 340 | 345 | 350 | |
| Phe | Gly | Leu | Glu | Ser | Thr | Ala | Gly | Glu | Ile | Pro | Val | Val | Ala | Ile | Arg | 355 | 360 | 365 | |
| Thr | Ala | Lys | Gly | Glu | Lys | Phe | Val | Met | Gln | Glu | Glu | Phe | Ser | Arg | Asp | 370 | 375 | 380 | |
| Gly | Lys | Ala | Leu | Glu | Arg | Phe | Leu | Gln | Asp | Tyr | Phe | Asp | Gly | Asn | Leu | 385 | 390 | 395 | 400 |
| Lys | Arg | Tyr | Leu | Lys | Ser | Glu | Pro | Ile | Pro | Glu | Ser | Asn | Asp | Gly | Pro | 405 | 410 | 415 | |
| Val | Lys | Val | Val | Val | Ala | Glu | Asn | Phe | Asp | Glu | Ile | Val | Asn | Asn | Glu | 420 | 425 | 430 | |
| Asn | Lys | Asp | Val | Leu | Ile | Glu | Phe | Tyr | Ala | Pro | Trp | Cys | Gly | His | Cys | 435 | 440 | 445 | |
| Lys | Asn | Leu | Glu | Pro | Lys | Tyr | Lys | Glu | Leu | Gly | Glu | Lys | Leu | Ser | Lys | 450 | 455 | 460 | |
| Asp | Pro | Asn | Ile | Val | Ile | Ala | Lys | Met | Asp | Ala | Thr | Ala | Asn | Asp | Val | 465 | 470 | 475 | 480 |
| Pro | Ser | Pro | Tyr | Glu | Val | Arg | Gly | Phe | Pro | Thr | Ile | Tyr | Phe | Ser | Pro | 485 | 490 | 495 | |
| Ala | Asn | Lys | Lys | Leu | Asn | Pro | Lys | Lys | Tyr | Glu | Gly | Gly | Arg | Glu | Leu | 500 | 505 | 510 | |

Ser Asp Phe Ile Ser Tyr Leu Gln Arg Glu Ala Thr Asn Pro Pro Val
 515 520 525

Ile Gln Glu Glu Lys Pro Lys Lys Lys Lys Lys Ala Gln Glu Asp Leu
 530 535 540

<210> 870

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 870

Arg Arg Xaa Ala Ile Phe Thr Cys Glu Val Pro Gly Val Tyr Tyr Phe
 1 5 10 15

Xaa Tyr His Val His Cys Lys Gly Gly Asn Val Trp Val Ala Leu Phe
 20 25 30

Lys Asn Asn Glu Pro Val Met Tyr Thr Tyr Asp Glu Tyr Lys Lys Gly
 35 40 45

Phe Leu Asp Gln Ala Ser Gly Ser Ala Val Leu Leu Leu Arg Pro Gly
 50 55 60

Asp Arg Cys Ser Ser Arg Cys Pro Gln Asn Arg Leu Gln Asp Cys Met
 65 70 75 80

Pro Gly Ser Met Ser Thr Pro Pro Phe Gln Asp Ile Tyr Cys Ile Pro
 85 90 95

Cys Lys Asn Lys Lys Thr Lys Asn Lys Glu Lys Lys Glu Ile Leu
 100 105 110

819

<210> 871
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 871
 Gly Lys Thr Glu Val Asn Tyr Thr Gln Leu Val Asp Leu His Ala Arg
 1 5 10 15
 Tyr Ala Glu Cys Gly Leu Arg Ile Leu Ala Phe Pro Cys Asn Gln Phe
 20 25 30
 Gly Lys Gln Glu Pro Gly Ser Asn Glu Glu Ile Lys Glu Phe Ala Ala
 35 40 45
 Gly Tyr Asn Val Lys Phe Asp Met Phe Ser Lys Ile Cys Val Asn Gly
 50 55 60
 Asp Asp Ala His Pro Leu Trp Lys Trp Met Lys Ile Gln Pro Lys Gly
 65 70 75 80
 Lys Gly Ile Leu Gly Asn Ala Ile Lys Trp Asn Phe Thr Lys Phe Leu
 85 90 95
 Ile Asp Lys Asn Gly Cys Val Val Lys Arg Tyr Gly Pro Met Glu Glu
 100 105 110
 Pro Leu Val Ile Glu Lys Asp Leu Pro His Tyr Phe
 115 120

<210> 872
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 872
 Ser Gln His Phe Gly Arg Pro Arg Gln Ala Glu His Leu Lys Glu Phe
 1 5 10 15
 Lys Thr Ser Val Ala Asn Val Val Asn Pro Val Ser Thr Lys Asn Thr
 20 25 30
 Lys Ile Val
 35

<210> 873
 <211> 420

820

<212> PRT

<213> Homo sapiens

<400> 873

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Cys | Leu | Gln | Leu | Cys | Gln | Ser | Thr | Val | Ser | Cys | Pro | Leu | Gly | Tyr | 1 | 5 | 10 | 15 |
| Leu | Ala | Ser | Thr | Ala | Thr | Asn | Asp | Cys | Gly | Cys | Thr | Thr | Thr | Thr | Cys | 20 | 25 | 30 | |
| Leu | Pro | Asp | Lys | Val | Cys | Val | His | Arg | Ser | Thr | Ile | Tyr | Pro | Val | Gly | 35 | 40 | 45 | |
| Gln | Phe | Trp | Glu | Glu | Gly | Cys | Asp | Val | Cys | Thr | Cys | Thr | Asp | Met | Glu | 50 | 55 | 60 | |
| Asp | Ala | Val | Met | Gly | Leu | Arg | Val | Ala | Gln | Cys | Ser | Gln | Lys | Pro | Cys | 65 | 70 | 75 | 80 |
| Glu | Asp | Ser | Cys | Arg | Ser | Gly | Phe | Thr | Tyr | Val | Leu | His | Glu | Gly | Glu | 85 | 90 | 95 | |
| Cys | Cys | Gly | Arg | Cys | Leu | Pro | Ser | Ala | Cys | Glu | Val | Val | Thr | Gly | Ser | 100 | 105 | 110 | |
| Pro | Arg | Gly | Asp | Ser | Gln | Ser | Ser | Trp | Lys | Ser | Val | Gly | Ser | Gln | Trp | 115 | 120 | 125 | |
| Ala | Ser | Pro | Glu | Asn | Pro | Cys | Leu | Ile | Asn | Glu | Cys | Val | Arg | Val | Lys | 130 | 135 | 140 | |
| Glu | Glu | Val | Phe | Ile | Gln | Gln | Arg | Asn | Val | Ser | Cys | Pro | Gln | Leu | Glu | 145 | 150 | 155 | 160 |
| Val | Pro | Val | Cys | Pro | Ser | Gly | Phe | Gln | Leu | Ser | Cys | Lys | Thr | Ser | Ala | 165 | 170 | 175 | |
| Cys | Cys | Pro | Ser | Cys | Arg | Cys | Glu | Arg | Met | Glu | Ala | Cys | Met | Leu | Asn | 180 | 185 | 190 | |
| Gly | Thr | Val | Ile | Gly | Pro | Gly | Lys | Thr | Val | Met | Ile | Asp | Val | Cys | Thr | 195 | 200 | 205 | |
| Thr | Cys | Arg | Cys | Met | Val | Gln | Val | Gly | Val | Ile | Ser | Gly | Phe | Lys | Leu | 210 | 215 | 220 | |
| Glu | Cys | Arg | Lys | Thr | Thr | Cys | Asn | Pro | Cys | Pro | Leu | Gly | Tyr | Lys | Glu | 225 | 230 | 235 | 240 |
| Glu | Asn | Asn | Thr | Gly | Glu | Cys | Cys | Gly | Arg | Cys | Leu | Pro | Thr | Ala | Cys | 245 | 250 | 255 | |

821

```

Thr Ile Gln Leu Arg Gly Gly Gln Ile Met Thr Leu Lys Arg Asp Glu
      260                      265                      270

Thr Leu Gln Asp Gly Cys Asp Thr His Phe Cys Lys Val Asn Glu Arg
      275                      280                      285

Gly Glu Tyr Phe Trp Glu Lys Arg Val Thr Gly Cys Pro Pro Phe Asp
      290                      295                      300

Glu His Lys Cys Leu Ala Glu Gly Gly Lys Ile Met Lys Ile Pro Gly
305                      310                      315                      320

Thr Cys Cys Asp Thr Cys Glu Glu Pro Glu Cys Asn Asp Ile Thr Ala
      325                      330                      335

Arg Leu Gln Tyr Val Lys Val Gly Ser Cys Lys Ser Glu Val Glu Val
      340                      345                      350

Asp Ile His Tyr Cys Gln Gly Lys Cys Ala Ser Lys Ala Met Tyr Ser
      355                      360                      365

Ile Asp Ile Asn Asp Val Gln Asp Gln Cys Ser Cys Cys Ser Pro Thr
      370                      375                      380

Arg Thr Glu Pro Met Gln Val Ala Leu His Cys Thr Asn Gly Ser Val
385                      390                      395                      400

Val Tyr His Glu Val Leu Asn Ala Met Glu Cys Lys Cys Ser Pro Arg
      405                      410                      415

Lys Cys Ser Lys
      420

```

<210> 874

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

822

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 874

Arg Gln Val Pro His Glu Arg Ala Val Arg Asp Gly Arg Gly Gly Gly
 1 5 10 15

Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser
 20 25 30

Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln
 35 40 45

Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala
 50 55 60

Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu Glu Ala Arg Thr
 65 70 75 80

Asp Ser Pro Phe Pro Asn Ser Cys Ala Xaa Gly Met Ala Asn Gly Asp
 85 90 95

Ala Pro Cys Met Gly Ala Xaa Lys Arg Gly Gly Cys Gly Gly Tyr Ala
 100 105 110

Gln Trp Thr Arg Tyr Thr Cys Gln Arg Pro Ser Ala Arg Ser Phe Arg
 115 120 125

Phe Leu Pro Phe Leu Ser Arg His Val Arg Arg Leu Ser Pro Xaa Ser
 130 135 140

Ser Lys Ser Val Gly Ser Leu
 145 150

<210> 875

<211> 95

<212> PRT

<213> Homo sapiens

<400> 875

Ala Leu Asn Leu Asn Ser Gln Leu Asn Ile Pro Lys Asp Thr Ser Gln
 1 5 10 15

Leu Lys Lys His Ile Thr Leu Leu Cys Asp Arg Leu Ser Lys Gly Gly
 20 25 30

Arg Leu Cys Leu Ser Thr Asp Ala Ala Ala Pro Gln Thr Met Val Met

823

| | | |
|---|----|----|
| 35 | 40 | 45 |
| Pro Gly Gly Cys Thr Thr Ile Pro Glu Ser Asp Leu Glu Glu Arg Ser | | |
| 50 | 55 | 60 |
| Val Glu Gln Asp Ser Thr Glu Leu Phe Thr Asn His Arg His Leu Thr | | |
| 65 | 70 | 75 |
| Ala Glu Thr Pro Arg Pro Val Ser Pro Leu Gln Gly Val Ser Glu | | |
| 85 | 90 | 95 |

<210> 876

<211> 238

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 876

| |
|---|
| Thr Lys Lys Ala Leu Glu Xaa Ser Asn Xaa Arg Phe Ala Ala Xaa Phe |
| 1 5 10 15 |

| |
|---|
| Phe Arg Thr Xaa Trp Asn Pro Pro Gly Ala Phe Lys Glu Phe Gly Thr |
| 20 25 30 |

| |
|---|
| Ser Leu Leu Arg Arg Arg Arg Gly Ser Gly Ala Asn Met Pro Val Ala |
| 35 40 45 |

| |
|---|
| Arg Ser Trp Val Cys Arg Lys Thr Tyr Val Thr Pro Arg Arg Pro Phe |
| 50 55 60 |

824

Glu Lys Ser Arg Leu Asp Gln Glu Leu Lys Leu Ile Gly Glu Tyr Gly
 65 70 75 80
 Leu Arg Asn Lys Arg Glu Val Trp Arg Val Lys Phe Thr Leu Ala Lys
 85 90 95
 Ile Arg Lys Ala Ala Arg Glu Leu Leu Thr Leu Asp Glu Lys Asp Pro
 100 105 110
 Arg Arg Leu Phe Glu Gly Asn Ala Leu Leu Arg Arg Leu Val Arg Ile
 115 120 125
 Gly Val Leu Asp Glu Gly Lys Met Lys Leu Asp Tyr Ile Leu Gly Leu
 130 135 140
 Lys Ile Glu Asp Phe Leu Glu Arg Arg Leu Gln Thr Gln Val Phe Lys
 145 150 155 160
 Leu Gly Leu Ala Lys Ser Ile His His Ala Arg Val Leu Ile Arg Gln
 165 170 175
 Arg His Ile Arg Val Arg Lys Gln Val Val Asn Ile Pro Ser Phe Ile
 180 185 190
 Val Arg Leu Asp Ser Gln Lys His Ile Asp Phe Ser Leu Arg Ser Pro
 195 200 205
 Tyr Gly Gly Gly Arg Pro Gly Arg Val Lys Arg Lys Asn Ala Lys Lys
 210 215 220
 Gly Gln Gly Gly Ala Gly Ala Gly Asp Asp Glu Glu Glu Asp
 225 230 235

<210> 877

<211> 79

<212> PRT

<213> Homo sapiens

<400> 877

Ala Gly Ile Arg His Glu Pro Ser Ala Ala Ala Met Ser Ser Gly Ala
 1 5 10 15
 Ser Ala Ser Ala Leu Gln Arg Leu Val Glu Gln Leu Lys Leu Glu Ala
 20 25 30
 Gly Val Glu Arg Ile Lys Val Ser Gln Ala Ala Ala Glu Leu Gln Gln
 35 40 45
 Tyr Cys Met Gln Asn Ala Cys Lys Asp Ala Leu Leu Val Gly Val Pro

825

50 55 60
 Ala Gly Ser Asn Pro Phe Arg Glu Pro Arg Ser Cys Ala Leu Leu
 65 70 75

 <210> 878
 <211> 136
 <212> PRT
 <213> Homo sapiens

 <400> 878
 Ile Ala Ile Met Asn Asp Thr Val Thr Ile Arg Thr Arg Lys Phe Met
 1 5 10 15
 Thr Asn Arg Leu Leu Gln Arg Lys Gln Met Val Ile Asp Val Leu His
 20 25 30
 Pro Gly Lys Ala Thr Val Pro Lys Thr Glu Ile Arg Glu Lys Leu Ala
 35 40 45
 Lys Met Tyr Lys Thr Thr Pro Asp Val Ile Phe Val Phe Gly Phe Arg
 50 55 60
 Thr His Phe Gly Gly Gly Lys Thr Thr Gly Phe Gly Met Ile Tyr Asp
 65 70 75 80
 Ser Leu Asp Tyr Ala Lys Lys Asn Glu Pro Lys His Arg Leu Ala Arg
 85 90 95
 His Gly Leu Tyr Glu Lys Lys Lys Thr Ser Arg Lys Gln Arg Lys Glu
 100 105 110
 Arg Lys Asn Arg Met Lys Lys Val Arg Gly Thr Ala Lys Ala Asn Val
 115 120 125
 Gly Ala Gly Lys Lys Pro Lys Glu
 130 135

<210> 879
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 879
 Gly Cys Val Gly Val Arg Pro Ser Leu His Pro Ala Thr Ser Thr Ala
 1 5 10 15

826

Ser Gly Ser Ala Ser Pro Thr Leu Ala Arg Ala Met Ala Ser Val Ser
 20 25 30
 Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp Glu Val
 35 40 45
 Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val
 50 55 60
 Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn
 65 70 75 80
 Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala
 85 90 95
 Pro Ala Ala Gly Ala Ala Pro Ala Gly Gly Pro Ala Pro Ser Thr Ala
 100 105 110
 Ala Ala Pro Ala Glu Glu Lys Lys Val Glu Ala Lys Lys Glu Glu Ser
 115 120 125
 Glu Glu Ser Asp Asp Asp Met Gly Phe Gly Leu Phe Asp
 130 135 140

<210> 880

<211> 133

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (130)

<223> Xaa equals any of the naturally occurring L-amino acids

827

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 880

Ser Ala Gly Ala His Ala His Gly Ala Arg Glu Leu Ala Xaa Phe Leu
 1 5 10 15

Thr Pro Xaa Pro Gly Ala Glu Ala Lys Glu Val Glu Glu Thr Ile Glu
 20 25 30

Gly Met Leu Leu Arg Leu Glu Glu Phe Cys Ser Leu Ala Asp Leu Ile
 35 40 45

Arg Ser Asp Thr Ser Gln Ile Leu Glu Glu Asn Ile Pro Val Leu Lys
 50 55 60

Ala Lys Leu Thr Glu Met Arg Gly Ile Tyr Ala Lys Val Asp Arg Leu
 65 70 75 80

Glu Ala Phe Val Lys Met Val Gly His His Val Ala Phe Leu Glu Ala
 85 90 95

Asp Val Leu Gln Ala Glu Arg Asp His Gly Ala Phe Pro Gln Ala Leu
 100 105 110

Arg Arg Trp Leu Gly Ser Ala Gly Ser Pro Pro Ser Gly Thr Ser Xaa
 115 120 125

Leu Xaa Xaa Cys Pro
 130

<210> 881

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

828

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (171)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 881

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Glu | Pro | Arg | Asp | Thr | Arg | Leu | Gln | Val | Cys | Ser | Xaa | Val | His |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Trp | Cys | Leu | Asp | Lys | Phe | Lys | Met | Arg | Lys | His | Arg | His | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ala | Val | Phe | Cys | Leu | Phe | Leu | Ser | Gly | Phe | Pro | Thr | Thr | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Gln | Gln | Gln | Ala | Val | Ile | Glu | Val | Asn | Lys | Arg | Asp | Ile | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Val | Asp | Gly | Ser | Ser | Ala | Leu | Gly | Leu | Ala | Asn | Phe | Asn | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Asp | Phe | Ile | Ala | Lys | Val | Ile | Gln | Arg | Leu | Glu | Ile | Gly | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Ile | Gln | Val | Ala | Val | Ala | Gln | Tyr | Ala | Asp | Thr | Val | Arg | Pro |
| | | 100 | | | | | | 105 | | | | | | 110 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Tyr | Phe | Asn | Thr | His | Pro | Thr | Lys | Arg | Xaa | Val | Ile | Thr | Ala |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Lys | Met | Lys | Pro | Leu | Xaa | Gly | Ser | Ala | Leu | Tyr | Thr | Gly | Ser |
| | 130 | | | | | 135 | | | | | | 140 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Asp | Phe | Val | Arg | Asn | Asn | Leu | Phe | Thr | Ser | Ser | Ala | Gly | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ala | Ala | Glu | Gly | Ile | Pro | Lys | Leu | Leu | Xaa | Leu | Ile | Thr | Gly | Gly |
| | | | 165 | | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Leu | Asp | Glu | Ile | Ser | Gln | Pro | Ala | Gln | Glu | Leu | Lys | Arg | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Met | Ala | Phe | Ala | Ile | Gly | Asn | Lys | Gly | Ala | Asp | Gln | Ala | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Glu | Ile | Ala | Phe | Asp | Ser | Ser | Leu | Val | Phe | Ile | Pro | Ala | Glu |
| | 210 | | | | | 215 | | | | | | 220 | | | |

829

Phe Arg Ala Ala Pro Leu Gln Gly Met Leu Pro Gly Leu Leu Ala Pro
225 230 235 240

Leu Arg Thr Leu Ser Gly Thr Pro Glu Val His Ser Asn Lys Arg Asp
245 250 255

Ile Ile Phe Leu
260

<210> 882
<211> 149
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

830

<400> 882

Xaa Xaa Glu Ser Glu Xaa Ser Phe Xaa Cys Arg Lys Xaa Ile Ile Xaa
 1 5 10 15
 Phe Leu Xaa Tyr Lys Arg Val Val Phe Leu Lys Gln Leu Ala Ser Gly
 20 25 30
 Leu Leu Leu Val Thr Gly Pro Leu Val Leu Asn Arg Val Pro Leu Arg
 35 40 45
 Arg Thr His Gln Lys Phe Val Ile Ala Thr Ser Thr Lys Ile Asp Ile
 50 55 60
 Ser Asn Val Lys Ile Pro Lys His Leu Thr Asp Ala Tyr Phe Lys Lys
 65 70 75 80
 Lys Lys Leu Arg Lys Pro Arg His Gln Glu Gly Glu Ile Phe Asp Thr
 85 90 95
 Glu Lys Glu Lys Tyr Glu Ile Thr Glu Gln Arg Lys Ile Asp Gln Lys
 100 105 110
 Ala Val Asp Ser Gln Ile Leu Pro Lys Ile Lys Ala Ile Pro Gln Leu
 115 120 125
 Gln Gly Tyr Leu Arg Ser Val Phe Ala Leu Thr Asn Gly Ile Tyr Pro
 130 135 140
 His Lys Leu Val Phe
 145

<210> 883

<211> 256

<212> PRT

<213> Homo sapiens

<400> 883

Trp Lys Ser Val Val Val Leu Ala Val Ser Ala Gly Ala Gly Ser Ala
 1 5 10 15
 His Pro Arg Gln Asn Lys Tyr Ser Val Leu Leu Pro Thr Tyr Asn Glu
 20 25 30
 Arg Glu Asn Leu Pro Leu Ile Val Trp Leu Leu Val Lys Ser Phe Ser
 35 40 45
 Glu Ser Gly Ile Asn Tyr Glu Ile Ile Ile Ile Asp Asp Gly Ser Pro
 50 55 60

831

Asp Gly Thr Arg Asp Val Ala Glu Gln Leu Glu Lys Ile Tyr Gly Ser
 65 70 75 80
 Asp Arg Ile Leu Leu Arg Pro Arg Glu Lys Lys Leu Gly Leu Gly Thr
 85 90 95
 Ala Tyr Ile His Gly Met Lys His Ala Thr Gly Asn Tyr Ile Ile Ile
 100 105 110
 Met Asp Ala Asp Leu Ser His His Pro Lys Phe Ile Pro Glu Phe Ile
 115 120 125
 Arg Lys Gln Lys Glu Gly Asn Phe Asp Ile Val Ser Gly Thr Arg Tyr
 130 135 140
 Lys Gly Asn Gly Gly Val Tyr Gly Trp Asp Leu Lys Arg Lys Ile Ile
 145 150 155 160
 Ser Arg Gly Ala Asn Phe Leu Thr Gln Ile Leu Leu Arg Pro Gly Ala
 165 170 175
 Ser Asp Leu Thr Gly Ser Phe Arg Leu Tyr Arg Lys Glu Val Leu Glu
 180 185 190
 Lys Leu Ile Glu Lys Cys Val Ser Lys Gly Tyr Val Phe Gln Met Glu
 195 200 205
 Met Ile Val Arg Ala Arg Gln Leu Asn Tyr Thr Ile Gly Glu Val Pro
 210 215 220
 Ile Ser Phe Val Asp Arg Val Tyr Gly Glu Ser Lys Leu Gly Gly Asn
 225 230 235 240
 Glu Ile Val Ser Phe Leu Lys Gly Leu Leu Thr Leu Phe Ala Thr Thr
 245 250 255

<210> 884

<211> 449

<212> PRT

<213> Homo sapiens

<400> 884

Gly Gly Ser Trp Cys Arg Ser Ser Pro Gly Arg Asp Gly Ser Pro Gly
 1 5 10 15

Ala Lys Gly Asp Arg Gly Glu Thr Gly Pro Ala Gly Pro Pro Gly Ala
 20 25 30
 Pro Gly Ala Pro Gly Ala Pro Gly Pro Val Gly Pro Ala Gly Lys Ser
 35 40 45
 Gly Asp Arg Gly Glu Thr Gly Pro Ala Gly Pro Ala Gly Pro Val Gly
 50 55 60
 Pro Val Gly Ala Arg Gly Pro Ala Gly Pro Gln Gly Pro Arg Gly Asp
 65 70 75 80
 Lys Gly Glu Thr Gly Glu Gln Gly Asp Arg Gly Ile Lys Gly His Arg
 85 90 95
 Gly Phe Ser Gly Leu Gln Gly Pro Pro Gly Pro Pro Gly Ser Pro Gly
 100 105 110
 Glu Gln Gly Pro Ser Gly Ala Ser Gly Pro Ala Gly Pro Arg Gly Pro
 115 120 125
 Pro Gly Ser Ala Gly Ala Pro Gly Lys Asp Gly Leu Asn Gly Leu Pro
 130 135 140
 Gly Pro Ile Gly Pro Pro Gly Pro Arg Gly Arg Thr Gly Asp Ala Gly
 145 150 155 160
 Pro Val Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro
 165 170 175
 Pro Ser Ala Gly Phe Asp Phe Ser Phe Leu Pro Gln Pro Pro Gln Glu
 180 185 190
 Lys Ala His Asp Gly Gly Arg Tyr Tyr Arg Ala Asp Asp Ala Asn Val
 195 200 205
 Val Arg Asp Arg Asp Leu Glu Val Asp Thr Thr Leu Lys Ser Leu Ser
 210 215 220
 Gln Gln Ile Glu Asn Ile Arg Ser Pro Glu Gly Ser Arg Lys Asn Pro
 225 230 235 240
 Ala Arg Thr Cys Arg Asp Leu Lys Met Cys His Ser Asp Trp Lys Ser
 245 250 255
 Gly Glu Tyr Trp Ile Asp Pro Asn Gln Gly Cys Asn Leu Asp Ala Ile
 260 265 270
 Lys Val Phe Cys Asn Met Glu Thr Gly Glu Thr Cys Val Tyr Pro Thr
 275 280 285

833

Gln Pro Ser Val Ala Gln Lys Asn Trp Tyr Ile Ser Lys Asn Pro Lys
 290 295 300

Asp Lys Arg His Val Trp Phe Gly Glu Ser Met Thr Asp Gly Phe Gln
 305 310 315 320

Phe Glu Tyr Gly Gly Gln Gly Ser Asp Pro Ala Asp Val Ala Ile Gln
 325 330 335

Leu Thr Phe Leu Arg Leu Met Ser Thr Glu Ala Ser Gln Asn Ile Thr
 340 345 350

Tyr His Cys Lys Asn Ser Val Ala Tyr Met Asp Gln Gln Thr Gly Asn
 355 360 365

Leu Lys Lys Ala Leu Leu Leu Gln Gly Ser Asn Glu Ile Glu Ile Arg
 370 375 380

Ala Glu Gly Asn Ser Arg Phe Thr Tyr Ser Val Thr Val Asp Gly Cys
 385 390 395 400

Thr Ser His Thr Gly Ala Trp Gly Lys Thr Val Ile Glu Tyr Lys Thr
 405 410 415

Thr Lys Thr Ser Arg Leu Pro Ile Ile Asp Val Ala Pro Leu Asp Val
 420 425 430

Gly Ala Pro Asp Gln Glu Phe Gly Phe Asp Val Gly Pro Val Cys Phe
 435 440 445

Leu

<210> 885

<211> 64

<212> PRT

<213> Homo sapiens

<400> 885

Gly Lys Leu Val Thr Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp
 1 5 10 15

Pro Arg Val Arg Trp Gly Phe Thr Lys Phe Asn Ala Asp Glu Phe Glu
 20 25 30

Asp Met Val Ala Glu Lys Arg Leu Ile Pro Asp Gly Cys Gly Val Lys
 35 40 45

Tyr Ile Pro Ser Arg Gly Pro Leu Asp Lys Trp Arg Ala Leu His Ser

834

50

55

60

<210> 886

<211> 132

<212> PRT

<213> Homo sapiens

<400> 886

Thr Thr Leu Arg Ala Leu Ala Leu Asn Leu Trp Pro Pro Lys Ser Arg
 1 5 10 15

Ser Leu Ile Ser Ser Trp Gln Ser Cys Gly Gln Glu Val Leu Lys Gly
 20 25 30

Lys Thr His Ser Asp Asn Cys Ser Pro Ile Tyr Gln Pro Ser Ala Gly
 35 40 45

Val Ser Asp Arg Gly Pro Leu Pro Pro Leu Glu Cys Ala Thr Tyr Glu
 50 55 60

Glu Cys Pro Met Gly Lys Arg Arg Leu Ser Cys Pro Leu Ala Ala Cys
 65 70 75 80

Ala Ser Ile Pro Gly Gln Lys Phe Pro Gln Glu Pro Leu Ala Leu Ala
 85 90 95

Gln Ser His Cys Glu Arg Arg Trp Glu Pro Thr Pro Leu Gly Glu Gly
 100 105 110

Ala Val Leu Leu Gly Thr Ser Gln His Gln Val Arg Ser Leu Lys Leu
 115 120 125

Lys Asn Val Asn
 130

<210> 887

<211> 70

<212> PRT

<213> Homo sapiens

<400> 887

Gly Leu Ser Ser Glu Ala Arg Glu Lys Ser Ser Glu Pro Gln Glu Arg
 1 5 10 15

835

Ser Ser Glu Pro Trp Glu Arg Ser Ser Glu Pro Trp Glu Gly Leu Val
 20 25 30

Thr Phe Glu Asp Val Ala Val Glu Phe Thr Gln Glu Glu Trp Ala Leu
 35 40 45

Leu Asp Pro Ala Gln Arg Thr Leu Tyr Arg Asp Val Met Leu Glu Asn
 50 55 60

Cys Arg Thr Trp Pro His
 65 70

<210> 888

<211> 373

<212> PRT

<213> Homo sapiens

<400> 888

Val Asp Pro Arg Val Arg Phe Arg Glu Glu Phe Leu Phe Ser Ser Leu
 1 5 10 15

Gln Glu Gly Arg Asp Lys Asp Thr Phe Ser Lys Met Ala Met Val Ser
 20 25 30

Glu Phe Leu Lys Gln Ala Trp Phe Ile Glu Asn Glu Glu Gln Glu Tyr
 35 40 45

Val Gln Thr Val Lys Ser Ser Lys Gly Gly Pro Gly Ser Ala Val Ser
 50 55 60

Pro Tyr Pro Thr Phe Asn Pro Ser Ser Asp Val Ala Ala Leu His Lys
 65 70 75 80

Ala Ile Met Val Lys Gly Val Asp Glu Ala Thr Ile Ile Asp Ile Leu
 85 90 95

Thr Lys Arg Asn Asn Ala Gln Arg Gln Gln Ile Lys Ala Ala Tyr Leu
 100 105 110

Gln Glu Thr Gly Lys Pro Leu Asp Glu Thr Leu Lys Lys Ala Leu Thr
 115 120 125

Gly His Leu Glu Glu Val Val Leu Ala Leu Leu Lys Thr Pro Ala Gln
 130 135 140

Phe Asp Ala Asp Glu Leu Arg Ala Ala Met Lys Gly Leu Gly Thr Asp
 145 150 155 160

Glu Asp Thr Leu Ile Glu Ile Leu Ala Ser Arg Thr Asn Lys Glu Ile

836

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Arg Asp Ile Asn Arg Val Tyr Arg Glu Glu Leu Lys Arg Asp Leu Ala | 180 | | 185 | | 190 |
| Lys Asp Ile Thr Ser Asp Thr Ser Gly Asp Phe Arg Asn Ala Leu Leu | 195 | | 200 | | 205 |
| Ser Leu Ala Lys Gly Asp Arg Ser Glu Asp Phe Gly Val Asn Glu Asp | 210 | | 215 | | 220 |
| Leu Ala Asp Ser Asp Ala Arg Ala Leu Tyr Glu Ala Gly Glu Arg Arg | 225 | | 230 | | 235 |
| Lys Gly Thr Asp Val Asn Val Phe Asn Thr Ile Leu Thr Thr Arg Ser | 245 | | 250 | | 255 |
| Tyr Pro Gln Leu Arg Arg Val Phe Gln Lys Tyr Thr Lys Tyr Ser Lys | 260 | | 265 | | 270 |
| His Asp Met Asn Lys Val Leu Asp Leu Glu Leu Lys Gly Asp Ile Glu | 275 | | 280 | | 285 |
| Lys Cys Leu Thr Ala Ile Val Lys Cys Ala Thr Ser Lys Pro Ala Phe | 290 | | 295 | | 300 |
| Phe Ala Glu Lys Leu His Gln Ala Met Lys Gly Val Gly Thr Arg His | 305 | | 310 | | 315 |
| Lys Ala Leu Ile Arg Ile Met Val Ser Arg Ser Glu Ile Asp Met Asn | 325 | | 330 | | 335 |
| Asp Ile Lys Ala Phe Tyr Gln Lys Met Tyr Gly Ile Ser Leu Cys Gln | 340 | | 345 | | 350 |
| Ala Ile Leu Asp Glu Thr Lys Gly Asp Tyr Glu Lys Ile Leu Val Ala | 355 | | 360 | | 365 |
| Leu Cys Gly Gly Asn | 370 | | | | |

<210> 889

<211> 336

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (183)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 889

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Lys | Lys | His | Leu | Xaa | Ala | Arg | Leu | Val | Thr | Glu | Met | Asp | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Tyr | Gln | Cys | Val | Lys | Leu | Asn | Asp | Gly | His | Phe | Met | Pro | Val | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Phe | Gly | Thr | Tyr | Ala | Pro | Ala | Glu | Val | Pro | Lys | Ser | Lys | Ala | Leu |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Xaa | Lys | Leu | Ala | Ile | Glu | Ala | Gly | Phe | Xaa | His | Ile | Asp | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | His | Xaa | Tyr | Asn | Asn | Glu | Glu | Gln | Val | Gly | Leu | Ala | Ile | Arg | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Ala | Asp | Gly | Ser | Val | Lys | Arg | Glu | Asp | Ile | Phe | Tyr | Thr | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Trp | Xaa | Asn | Ser | His | Arg | Pro | Glu | Leu | Val | Arg | Pro | Ala | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Ser | Leu | Lys | Asn | Leu | Gln | Leu | Asp | Tyr | Val | Asp | Leu | Tyr | Leu |
| | | 115 | | | | | 120 | | | | | | 125 | | |

838

```

Ile His Phe Pro Val Ser Val Lys Pro Gly Glu Glu Val Ile Pro Lys
  130                      135                      140

Asp Glu Asn Gly Lys Ile Leu Phe Asp Thr Val Asp Leu Cys Ala Thr
  145                      150                      155                      160

Trp Glu Ala Val Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile
                      165                      170                      175

Gly Val Ser Asn Phe Asn Xaa Arg Gln Leu Glu Met Ile Leu Asn Lys
                      180                      185                      190

Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu Cys His Pro
  195                      200                      205

Tyr Phe Asn Gln Arg Lys Leu Leu Asp Phe Cys Lys Ser Lys Asp Ile
  210                      215                      220

Val Leu Val Ala Tyr Ser Ala Leu Gly Ser His Arg Glu Glu Pro Trp
  225                      230                      235                      240

Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val Leu Cys Ala
                      245                      250                      255

Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala Leu Arg Tyr
  260                      265                      270

Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr Asn Glu Gln
  275                      280                      285

Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu Thr Ser Glu
  290                      295                      300

Glu Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Val Arg Tyr Leu Thr
  305                      310                      315                      320

Leu Asp Ile Phe Ala Gly Pro Pro Asn Tyr Pro Phe Ser Asp Glu Tyr
                      325                      330                      335

```

<210> 890

<211> 195

<212> PRT

<213> Homo sapiens

<400> 890

839

Arg Ser Ser Glu Val Tyr Ala Gln Leu Cys Asn Val Ala Arg Ile Glu
 1 5 10 15
 Ala Glu Arg Glu Ala Gly Val His Phe Arg Pro Gly Tyr Glu Tyr Gly
 20 25 30
 Pro Gly Pro Asp Asp Leu His Tyr Ser Ile Tyr Gly Pro Asp Gly Ala
 35 40 45
 Pro Phe Tyr Asn Tyr Leu Gly Pro Glu Asp Thr Val Pro Glu Pro Ala
 50 55 60
 Phe Pro Asn Thr Ala Gly His Ser Ala Asp Arg Thr Pro Ile Leu Glu
 65 70 75 80
 Ser Pro Leu Gln Pro Ser Glu Leu Gln Pro His Tyr Val Ala Ser His
 85 90 95
 Pro Glu Pro Pro Ala Gly Phe Glu Gly Leu Gln Ala Glu Glu Cys Gly
 100 105 110
 Ile Leu Asn Gly Cys Glu Asn Gly Arg Cys Val Arg Val Arg Glu Gly
 115 120 125
 Tyr Thr Cys Asp Cys Phe Glu Gly Phe Gln Leu Asp Ala Ala His Met
 130 135 140
 Ala Cys Val Asp Val Asn Glu Cys Asp Asp Leu Asn Gly Pro Ala Val
 145 150 155 160
 Leu Cys Val His Gly Tyr Cys Glu Asn Thr Glu Gly Ser Tyr Arg Cys
 165 170 175
 His Cys Ser Pro Gly Tyr Val Ala Glu Ala Gly Pro Pro His Cys Thr
 180 185 190
 Ala Lys Glu
 195

<210> 891

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

840

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 891

Ser Ala Gly Leu Thr Gly Arg Ile Ala Phe Ala Ala Ala Arg Pro Gln
 1 5 10 15

Thr Phe Val Pro Gly Pro Ser Ser Pro Pro Pro Pro Pro Pro Arg
 20 25 30

Pro Ala Glu Leu Ala Pro Ser Pro Pro Ala Asp Met Ser Glu Ser Lys
 35 40 45

Ser Gly Pro Glu Tyr Ala Ser Phe Phe Ala Val Met Gly Ala Ser Ala
 50 55 60

Ala Met Val Phe Ser Ala Leu Gly Ala Ala Tyr Gly Thr Ala Lys Ser
 65 70 75 80

Gly Thr Gly Ile Ala Ala Met Ser Val Met Arg Pro Glu Gln Ile Met
 85 90 95

Lys Ser Ile Ile Pro Val Val Met Ala Gly Ile Xaa Xaa Ile Tyr Gly
 100 105 110

Leu Val Val Ala Val Leu Ile Ala Asn Ser Leu Asn Asp Asp Ile Ser
 115 120 125

Leu Tyr Lys Ser Phe Leu Gln Leu Gly Ala Gly Leu Ser Val Gly Leu
 130 135 140

Ser Gly Leu Ala Ala Gly Phe Ala Ile Gly Ile Val Gly Asp Ala Gly
 145 150 155 160

Val Arg Gly Asn Ala Gln Gln Pro Arg Leu Phe Val Gly Met Ile Leu
 165 170 175

Ile Leu Ile Phe Ala Glu Val Leu Gly Leu Tyr Gly Leu Ile Val Ala
 180 185 190

Leu Ile Leu Ser Thr Lys
 195

<210> 892

<211> 95

<212> PRT

<213> Homo sapiens

841

<400> 892

```

Asp Ala Trp Ala Pro Ser Glu Ser Arg Glu Ala Leu Leu Thr Pro Pro
 1              5              10              15

Pro His Arg Arg His Thr Ala Ala Ala Ser Val Met Pro Lys His Glu
              20              25              30

Phe Ser Val Asp Met Thr Cys Gly Gly Cys Ala Glu Ala Val Ser Arg
              35              40              45

Val Leu Asn Lys Leu Gly Gly Val Lys Tyr Asp Ile Asp Leu Pro Asn
 50              55              60

Lys Lys Val Cys Ile Glu Ser Glu His Ser Met Asp Thr Leu Leu Ala
 65              70              75              80

Thr Leu Lys Lys Thr Gly Lys Thr Val Ser Tyr Leu Gly Leu Glu
              85              90              95

```

<210> 893

<211> 123

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 893

```

Gly Glu His Pro Arg Gln Pro Ala Gly Asn Asn Ile Leu Ala Val Leu
 1              5              10              15

Thr Cys Cys Gln Gln Ile His Arg Thr Trp Met Lys Phe Pro Phe Pro
              20              25              30

Leu Val Ser Ser Cys Ser Thr Pro Leu Leu Asp Pro Lys Ser Leu Thr
              35              40              45

Lys Ala Leu Asn Thr Val Lys Met Phe Tyr Ile Pro Phe His Leu Cys
 50              55              60

Cys Phe Phe Asn Cys Ile Leu Pro Asp Val Leu Met Leu Ser Leu Met

```


843

<210> 895

<211> 171

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 895

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Glu | Gly | Ser | Lys | Gly | Val | Glu | Thr | Arg | Arg | Val | Leu | Val | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gln | Gln | Gln | Cys | Xaa | Asp | Ala | Lys | Ser | Gln | Gln | Lys | Glu | Gln | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Leu | Glu | Xaa | Lys | Ser | Ala | Ala | Tyr | Ser | Gln | Val | Leu | Leu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Thr | Leu | Leu | Gln | Arg | Leu | Leu | Gln | Glu | His | Arg | Leu | Lys | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Glu | Leu | Asp | Arg | Ile | Asn | Ala | Gln | Tyr | Leu | Glu | Val | Lys | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Met | Ile | Leu | Lys | Leu | Arg | Met | Glu | Glu | Leu | Lys | Ile | Leu | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Thr | Tyr | Thr | Val | Glu | Lys | Val | Glu | Val | His | Arg | Leu | Ile | Arg | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Glu | Gly | Ala | Ile | His | Leu | Gln | Glu | Gln | Asp | Met | Glu | Asn | Ser |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Val | Leu | Asn | Ser | Tyr | Glu | Val | Leu | Gly | Glu | Glu | Phe | Asp | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Lys | Glu | Tyr | Thr | Val | Leu | Lys | Gln | Ala | Thr | Glu | Asn | Lys | Arg |
| 145 | | | | | | 150 | | | | 155 | | | | | 160 |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ala | Leu | Gln | Glu | Phe | Ser | Lys | Val | Tyr | Arg |
| | | | 165 | | | | | | 170 | |

844

<210> 896

<211> 99

<212> PRT

<213> Homo sapiens

<400> 896

```

Arg Glu Val Met Lys Leu Tyr Leu Phe Gln Trp Ala Leu Phe His Phe
 1             5             10             15

Thr Thr Val Pro Leu Phe Gly Ser Trp Ser Tyr Thr Leu Ile Phe Ser
          20             25             30

Ile Leu Leu Leu Asn Tyr Gln His Lys Ala Ile Tyr Leu Lys Asp Ser
          35             40             45

Val Tyr Pro Ala Ile Ala Leu Lys Ser Ser Arg Lys Arg Asn Pro Leu
          50             55             60

Thr Cys Ile Ser Phe Cys Arg Ala Ser Leu Phe Ser Phe Val Leu Cys
 65             70             75             80

Phe Leu Pro Phe Glu Ser Asp Ser Val Leu Val Arg Lys Thr Ser Trp
          85             90             95

Asp His Ser

```

<210> 897

<211> 289

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (255)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 897

```

Ala Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Pro Thr Arg Arg Pro
 1             5             10             15

Arg Val Arg Gly Arg Ser Gln Leu Ser Ala His Gly Pro Ala Ser Phe
          20             25             30

Lys Met Ser Thr Val His Glu Ile Leu Cys Lys Leu Ser Leu Glu Gly
          35             40             45

```

845

Asp His Ser Thr Pro Pro Ser Ala Tyr Gly Ser Val Lys Ala Tyr Thr
 50 55 60
 Asn Phe Asp Ala Glu Arg Asp Ala Leu Asn Ile Glu Thr Ala Ile Lys
 65 70 75 80
 Thr Lys Gly Val Asp Glu Val Thr Ile Val Asn Ile Leu Thr Asn Arg
 85 90 95
 Ser Asn Ala Gln Arg Gln Asp Ile Ala Phe Ala Tyr Gln Arg Arg Thr
 100 105 110
 Lys Lys Glu Leu Ala Ser Ala Leu Lys Ser Ala Leu Ser Gly His Leu
 115 120 125
 Glu Thr Val Ile Leu Gly Leu Leu Lys Thr Pro Ala Gln Tyr Asp Ala
 130 135 140
 Ser Glu Leu Lys Ala Ser Met Lys Gly Leu Gly Thr Asp Glu Asp Ser
 145 150 155 160
 Leu Ile Glu Ile Ile Cys Ser Arg Thr Asn Gln Glu Leu Gln Glu Ile
 165 170 175
 Asn Arg Val Tyr Lys Glu Met Tyr Lys Thr Asp Leu Glu Lys Asp Ile
 180 185 190
 Ile Ser Asp Thr Ser Gly Asp Phe Arg Lys Leu Met Val Ala Leu Ala
 195 200 205
 Lys Gly Arg Arg Ala Glu Asp Gly Ser Val Ile Asp Tyr Glu Leu Ile
 210 215 220
 Asp Gln Asp Ala Arg Asp Leu Tyr Asp Ala Gly Val Lys Arg Lys Gly
 225 230 235 240
 Thr Asp Val Pro Lys Trp Ile Ser Ile Met Thr Glu Arg Ser Xaa Pro
 245 250 255
 Thr Ser Arg Lys Tyr Leu Ile Gly Thr Arg Val Thr Ala Leu Met Thr
 260 265 270
 Cys Trp Lys Ala Ser Gly Lys Arg Leu Lys Glu Thr Trp Lys Met Leu
 275 280 285
 Ser

846

<210> 898
 <211> 232
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (205)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 898

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Pro | Arg | Gly | Lys | Val | Ala | Gly | Phe | Asp | Leu | Asp | Gly | Thr | Leu | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Thr | Arg | Ser | Gly | Lys | Val | Phe | Pro | Thr | Gly | Pro | Ser | Asp | Trp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Leu | Tyr | Pro | Glu | Ile | Pro | Arg | Lys | Leu | Arg | Glu | Leu | Glu | Ala | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Tyr | Lys | Leu | Val | Ile | Phe | Thr | Asn | Gln | Met | Ser | Ile | Gly | Arg | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Leu | Pro | Ala | Glu | Glu | Phe | Lys | Ala | Lys | Val | Glu | Ala | Val | Val | Glu |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Leu | Gly | Val | Pro | Phe | Gln | Val | Leu | Val | Ala | Thr | His | Ala | Gly | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Arg | Lys | Pro | Val | Thr | Gly | Met | Trp | Asp | His | Leu | Gln | Glu | Gln | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Asp | Gly | Thr | Pro | Ile | Ser | Ile | Gly | Asp | Ser | Ile | Phe | Val | Gly | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Ala | Gly | Arg | Pro | Ala | Asn | Trp | Ala | Pro | Gly | Arg | Lys | Lys | Lys | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Ser | Cys | Ala | Asp | Arg | Leu | Phe | Ala | Leu | Asn | Leu | Gly | Leu | Pro | Phe |
| | 145 | | | | 150 | | | | | 155 | | | | 160 | |
| Ala | Thr | Pro | Glu | Glu | Phe | Phe | Leu | Lys | Trp | Pro | Ala | Ala | Gly | Phe | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Pro | Ala | Phe | Asp | Pro | Arg | Thr | Val | Ser | Arg | Ser | Gly | Pro | Leu | Cys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Pro | Glu | Ser | Arg | Ala | Leu | Leu | Ser | Ala | Thr | Arg | Xaa | Trp | Leu | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | Trp | Asp | Ser | Leu | Gly | Pro | Gly | Ser | Pro | Pro | Phe | Ser | Arg | Ser | Thr |

847

210 215 220
 Ser Cys Arg Pro Asp Met Ser Thr
 225 230

<210> 899
 <211> 218
 <212> PRT
 <213> Homo sapiens

<400> 899
 Leu Arg Val Ala Arg Pro Asp Ala Ala Arg Ala Ala Pro Leu Ala Pro
 1 5 10 15
 Ala Ala Ala Met Lys Ala Val Val Gln Arg Val Thr Arg Ala Ser Val
 20 25 30
 Thr Val Gly Gly Glu Gln Ile Ser Ala Ile Gly Arg Gly Ile Cys Val
 35 40 45
 Leu Leu Gly Ile Ser Leu Glu Asp Thr Gln Lys Glu Leu Glu His Met
 50 55 60
 Val Arg Lys Ile Leu Asn Leu Arg Val Phe Glu Asp Glu Ser Gly Lys
 65 70 75 80
 His Trp Ser Lys Ser Val Met Asp Lys Gln Tyr Glu Ile Leu Cys Val
 85 90 95
 Ser Gln Phe Thr Leu Gln Cys Val Leu Lys Gly Asn Lys Pro Asp Phe
 100 105 110
 His Leu Ala Met Pro Thr Glu Gln Ala Glu Gly Phe Tyr Asn Ser Phe
 115 120 125
 Leu Glu Gln Leu Arg Lys Thr Tyr Arg Pro Glu Leu Ile Lys Asp Gly
 130 135 140
 Lys Phe Gly Ala Tyr Met Gln Val His Ile Gln Asn Asp Gly Pro Val
 145 150 155 160
 Thr Ile Glu Leu Glu Ser Pro Ala Pro Gly Thr Ala Thr Ser Asp Pro
 165 170 175
 Lys Gln Leu Ser Lys Leu Glu Lys Gln Gln Gln Arg Lys Glu Lys Thr
 180 185 190
 Arg Ala Lys Gly Pro Ser Glu Phe Lys Gln Gly Lys Lys His Ser Pro
 195 200 205

848

Lys Arg Arg Pro Gln Cys Gln Gln Arg Gly
210 215

<210> 900
<211> 152
<212> PRT
<213> Homo sapiens

<400> 900
Ser Lys Arg Gly His Val Pro Trp Gly Leu Glu Glu Ile Leu Asp Val
1 5 10 15
Ile Glu Pro Ser Gln Phe Val Lys Ile Gln Glu Pro Leu Phe Lys Gln
20 25 30
Ile Ala Lys Cys Val Ser Ser Pro His Phe Gln Val Ala Glu Arg Ala
35 40 45
Leu Tyr Tyr Trp Asn Asn Glu Tyr Ile Met Ser Leu Ile Glu Glu Asn
50 55 60
Ser Asn Val Ile Leu Pro Ile Met Phe Ser Ser Leu Tyr Arg Ile Ser
65 70 75 80
Lys Glu His Trp Asn Pro Ala Ile Val Ala Leu Val Tyr Asn Val Leu
85 90 95
Lys Ala Phe Met Glu Met Asn Ser Thr Met Phe Asp Glu Leu Thr Ala
100 105 110
Thr Tyr Lys Ser Asp Arg Gln Arg Glu Lys Lys Lys Glu Lys Glu Arg
115 120 125
Glu Glu Leu Trp Lys Lys Leu Glu Asp Leu Glu Leu Lys Arg Gly Leu
130 135 140
Arg Arg Asp Gly Ile Ile Pro Thr
145 150

<210> 901
<211> 261
<212> PRT
<213> Homo sapiens

<400> 901
Gly Leu Arg Glu Ile Ser Gly Arg Leu Ala Glu Met Pro Ala Asp Ser

849

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Gly Tyr Pro Ala Tyr Leu Gly Ala Arg Leu Ala Ser Phe Tyr Glu Arg | 20 | 25 | 30 |
| Ala Gly Arg Val Lys Cys Leu Gly Asn Pro Glu Arg Glu Gly Ser Val | 35 | 40 | 45 |
| Ser Ile Val Gly Ala Val Ser Pro Pro Gly Gly Asp Phe Ser Asp Pro | 50 | 55 | 60 |
| Val Thr Ser Ala Thr Leu Gly Ile Val Gln Val Phe Trp Gly Leu Asp | 65 | 70 | 75 |
| Lys Lys Leu Ala Gln Arg Lys His Phe Pro Ser Val Asn Trp Leu Ile | 85 | 90 | 95 |
| Ser Tyr Ser Lys Tyr Met Arg Ala Leu Asp Glu Tyr Tyr Asp Lys His | 100 | 105 | 110 |
| Phe Thr Glu Phe Val Pro Leu Arg Thr Lys Ala Lys Glu Ile Leu Gln | 115 | 120 | 125 |
| Glu Glu Glu Asp Leu Ala Glu Ile Val Gln Leu Val Gly Lys Ala Ser | 130 | 135 | 140 |
| Leu Ala Glu Thr Asp Lys Ile Thr Leu Glu Val Ala Lys Leu Ile Lys | 145 | 150 | 155 |
| Asp Asp Phe Leu Gln Gln Asn Gly Tyr Thr Pro Tyr Asp Arg Phe Cys | 165 | 170 | 175 |
| Pro Phe Tyr Lys Thr Val Gly Met Leu Ser Asn Met Ile Ala Phe Tyr | 180 | 185 | 190 |
| Asp Met Ala Arg Arg Val Phe Glu Thr Thr Ala Gln Ser Asp Asn Lys | 195 | 200 | 205 |
| Ile Thr Trp Ser Ile Ile Arg Glu His Met Gly Asp Ile Leu Tyr Lys | 210 | 215 | 220 |
| Leu Ser Ser Met Lys Phe Lys Asp Pro Leu Lys Asp Gly Glu Ala Lys | 225 | 230 | 235 |
| Ile Lys Ser Asp Tyr Ala Gln Leu Leu Glu Asp Met Gln Asn Ala Phe | 245 | 250 | 255 |
| Arg Ser Leu Glu Asp | 260 | | |

850

<210> 902
 <211> 169
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (33)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 902
 Phe Pro Gly Arg Pro Thr Arg Pro Arg Gly Ile Ser Val Ser Gly Gly
 1 5 10 15
 Glu Ala Val Cys Pro Val Gln Trp Arg Leu Arg Lys Leu Ala Ala Ala
 20 25 30
 Xaa Gly Lys Gly Gln Glu Val Glu Thr Ser Val Thr Tyr Tyr Arg Leu
 35 40 45
 Glu Glu Val Ala Lys Arg Asn Ser Leu Lys Glu Leu Trp Leu Val Ile
 50 55 60
 His Gly Arg Val Tyr Asp Val Thr Arg Phe Leu Asn Glu His Pro Gly
 65 70 75 80
 Gly Glu Glu Val Leu Leu Glu Gln Ala Gly Val Asp Ala Ser Glu Ser
 85 90 95
 Phe Glu Asp Val Gly His Ser Ser Asp Ala Arg Glu Met Leu Lys Gln
 100 105 110
 Tyr Tyr Ile Gly Asp Ile His Pro Ser Asp Leu Lys Pro Glu Ser Gly
 115 120 125
 Ser Lys Asp Pro Ser Lys Asn Asp Thr Cys Lys Ser Cys Trp Ala Tyr
 130 135 140
 Trp Ile Leu Pro Ile Ile Gly Ala Val Leu Leu Gly Phe Leu Tyr Arg
 145 150 155 160
 Tyr Tyr Thr Ser Glu Ser Lys Ser Ser
 165

<210> 903
 <211> 53
 <212> PRT
 <213> Homo sapiens

851

<220>
 <221> SITE
 <222> (15)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (19)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 903
 Pro Leu Cys Leu Ala Lys Asn Lys Asn Phe Leu Ile Leu Arg Xaa Asn
 1 5 10 15

 Ile Gln Xaa Ile His Ile Lys Ser Leu Glu Asn Ile Ile Pro Phe Asp
 20 25 30

 Ser Leu Ile Thr Leu Leu Glu Tyr Lys Glu Met Ile Leu Asn Ile Tyr
 35 40 45

 Val Val Leu Trp Ser
 50

<210> 904
 <211> 329
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (3)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (5)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (36)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 904
 Arg Arg Xaa Ala Xaa Pro Arg Val Arg Trp Lys Ile Cys Gly Leu Ser
 1 5 10 15

 Pro Thr Thr Thr Leu Ala Ile Tyr Phe Glu Val Val Asn Gln His Asn

852

| | | |
|---|-----|-----|
| 20 | 25 | 30 |
| Ala Pro Ile Xaa Gln Gly Gly Arg Gly Ala Ile Gln Phe Val Thr Gln | | |
| 35 | 40 | 45 |
| Tyr Gln His Ser Ser Gly Gln Arg Arg Ile Arg Val Thr Thr Ile Ala | | |
| 50 | 55 | 60 |
| Arg Asn Trp Ala Asp Ala Gln Thr Gln Ile Gln Asn Ile Ala Ala Ser | | |
| 65 | 70 | 75 |
| Phe Asp Gln Glu Ala Ala Ala Ile Leu Met Ala Arg Leu Ala Ile Tyr | | |
| 85 | 90 | 95 |
| Arg Ala Glu Thr Glu Glu Gly Pro Asp Val Leu Arg Trp Leu Asp Arg | | |
| 100 | 105 | 110 |
| Gln Leu Ile Arg Leu Cys Gln Lys Phe Gly Glu Tyr His Lys Asp Asp | | |
| 115 | 120 | 125 |
| Pro Ser Ser Phe Arg Phe Ser Glu Thr Phe Ser Leu Tyr Pro Gln Phe | | |
| 130 | 135 | 140 |
| Met Phe His Leu Arg Arg Ser Ser Phe Leu Gln Val Phe Asn Asn Ser | | |
| 145 | 150 | 155 |
| Pro Asp Glu Ser Ser Tyr Tyr Arg His His Phe Met Arg Gln Asp Leu | | |
| 165 | 170 | 175 |
| Thr Gln Ser Leu Ile Met Ile Gln Pro Ile Leu Tyr Ala Tyr Ser Phe | | |
| 180 | 185 | 190 |
| Ser Gly Pro Pro Glu Pro Val Leu Leu Asp Ser Ser Ser Ile Leu Ala | | |
| 195 | 200 | 205 |
| Asp Arg Ile Leu Leu Met Asp Thr Phe Phe Gln Ile Leu Ile Tyr His | | |
| 210 | 215 | 220 |
| Gly Glu Thr Ile Ala Gln Trp Arg Lys Ser Gly Tyr Gln Asp Met Pro | | |
| 225 | 230 | 235 |
| Glu Tyr Glu Asn Phe Arg His Leu Leu Gln Ala Pro Val Asp Asp Ala | | |
| 245 | 250 | 255 |
| Gln Glu Ile Leu His Ser Arg Phe Pro Met Pro Arg Tyr Ile Asp Thr | | |
| 260 | 265 | 270 |
| Glu His Gly Gly Ser Gln Ala Arg Phe Leu Leu Ser Lys Val Asn Pro | | |
| 275 | 280 | 285 |
| Ser Gln Thr His Asn Asn Met Tyr Ala Trp Gly Gln Glu Ser Gly Ala | | |

853

290 295 300

Pro Ile Leu Thr Asp Asp Val Ser Leu Gln Val Phe Met Asp His Leu
 305 310 315 320

Lys Lys Leu Ala Val Ser Ser Ala Ala
 325

<210> 905

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 905

Phe Leu Leu Pro Thr Leu Trp Phe Cys Ser Pro Ser Ala Lys Tyr Phe
 1 5 10 15

Phe Lys Met Ala Phe Tyr Asn Gly Trp Ile Leu Phe Leu Ala Val Leu
 20 25 30

Ala Ile Pro Val Cys Ala Val Arg Gly Arg Asn Val Glu Asn Met Xaa
 35 40 45

Ile Leu Arg Leu Met Leu Leu His Ile Lys Tyr Leu Tyr Gly Ile Arg
 50 55 60

Val Glu Val Arg Gly Ala His His Phe Pro Pro Ser Gln Pro Tyr Val
 65 70 75 80

Val Val Ser Asn His Gln Ser Ser Leu Asp Leu Leu Gly Met Met Glu
 85 90 95

Val Leu Pro Gly Arg Cys Val Pro Ile Ala Lys Arg Glu Leu Leu Trp
 100 105 110

Ala Gly Ser Ala Gly Leu Ala Cys Trp Leu Ala Gly Val Ile Phe Ile
 115 120 125

Asp Arg Lys Arg Thr Gly Asp Ala Ile Ser Val Met Ser Glu Val Ala
 130 135 140

Gln Thr Leu Leu Thr Gln Asp Val Arg Val Trp Val Phe Pro Glu Gly
 145 150 155 160

854

Thr Arg Asn His Asn Gly Ser Met Leu Pro Phe Lys Arg Gly Ala Phe
 165 170 175
 His Leu Ala Val Gln Ala Gln Val Pro Ile Val Pro Ile Val Met Ser
 180 185 190
 Ser Tyr Gln Asp Phe Tyr Cys Lys Lys Glu Arg Arg Phe Thr Ser Gly
 195 200 205
 Gln Cys Gln Val Arg Val Leu Pro Pro Val Pro Thr Glu Gly Leu Thr
 210 215 220
 Pro Asp Asp Val Pro Ala Leu Ala Asp Arg Val Arg His Ser Met Leu
 225 230 235 240
 Thr Val Phe Arg Glu Ile Ser Thr Asp Gly Arg Gly Gly Gly Asp Tyr
 245 250 255
 Leu Lys Lys Pro Gly Gly Gly Gly
 260

<210> 906

<211> 189

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 906

Xaa Xaa Pro Xaa Pro Glu Phe Pro Gly Arg Thr His Ala Ser Gly Leu
 1 5 10 15

Leu Arg Ser Arg Leu Ala Leu Arg Trp Leu Ser His Val Arg Arg Pro
 20 25 30

Ser Arg Arg Val Pro Arg Met Pro Arg Gly Ser Arg Ser Arg Thr Ser

855

| | | |
|---|-----|-------------|
| 35 | 40 | 45 |
| Arg Met Ala Pro Pro Ala Ser Arg Ala Pro Gln Met Arg Ala Ala Pro | | |
| 50 | 55 | 60 |
| Arg Pro Ala Pro Val Ala Gln Pro Pro Ala Ala Ala Pro Pro Ser Ala | | |
| 65 | 70 | 75 80 |
| Val Gly Ser Ser Ala Ala Ala Pro Arg Gln Pro Gly Leu Met Ala Gln | | |
| | 85 | 90 95 |
| Met Ala Thr Thr Ala Ala Gly Val Ala Val Gly Ser Ala Val Gly His | | |
| | 100 | 105 110 |
| Thr Leu Gly His Ala Ile Thr Gly Gly Phe Ser Gly Gly Ser Asn Ala | | |
| | 115 | 120 125 |
| Glu Pro Ala Arg Pro Asp Ile Thr Tyr Gln Glu Pro Gln Gly Thr Gln | | |
| | 130 | 135 140 |
| Pro Ala Gln Gln Gln Gln Pro Cys Leu Tyr Glu Ile Lys Gln Phe Leu | | |
| | 145 | 150 155 160 |
| Glu Cys Ala Gln Asn Gln Gly Asp Ile Lys Leu Cys Glu Gly Phe Asn | | |
| | 165 | 170 175 |
| Glu Val Leu Lys Gln Cys Arg Leu Ala Asn Gly Leu Ala | | |
| | 180 | 185 |

<210> 907

<211> 638

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (427)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 907

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Val | Gln | Gly | Tyr | Ser | Leu | Ser | Gln | Ala | Asp | Val | Asp | Ala | Phe | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Ser | Ala | Pro | Pro | Ala | Asp | Pro | Gln | Leu | Phe | His | Val | Ala | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Phe | Arg | His | Ile | Glu | Ala | Leu | Leu | Gly | Xaa | Pro | Cys | Gly | Lys | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Cys | Xaa | Leu | Pro | Ser | Xaa | Gln | Arg | Pro | Ala | Cys | Ala | Ala | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Pro | Ser | Cys | Trp | Asp | Pro | Xaa | Cys | Arg | Leu | His | Leu | Tyr | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Thr | Arg | Asn | Lys | Glu | Val | Phe | Ile | Pro | Gln | Asp | Gly | Lys | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Trp | Tyr | Cys | Cys | Gly | Pro | Thr | Val | Tyr | Asp | Ala | Ser | His | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | His | Ala | Arg | Ser | Tyr | Ile | Ser | Phe | Asp | Ile | Leu | Arg | Arg | Val | Leu |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asp | Tyr | Phe | Lys | Phe | Asp | Val | Phe | Tyr | Cys | Met | Asn | Ile | Thr | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asp | Asp | Lys | Ile | Ile | Lys | Arg | Ala | Arg | Gln | Asn | His | Leu | Phe | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Tyr | Arg | Glu | Lys | Arg | Pro | Glu | Ala | Ala | Gln | Leu | Leu | Glu | Asp | Val |
| | | | | 165 | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Ala | Leu | Lys | Pro | Phe | Ser | Val | Lys | Leu | Asn | Glu | Thr | Thr | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Lys | Lys | Gln | Met | Leu | Glu | Arg | Ile | Gln | His | Ala | Val | Gln | Leu |
| | | 195 | | | | 200 | | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Glu | Pro | Leu | Glu | Lys | Ala | Val | Gln | Ser | Arg | Leu | Thr | Gly | Glu |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

857

| | | |
|---|-----|---------|
| 210 | 215 | 220 |
| Glu Val Asn Ser Cys Val Glu Val Leu Leu Glu Glu Ala Lys Asp Leu | | |
| 225 | 230 | 235 240 |
| Leu Ser Asp Trp Leu Asp Ser Thr Leu Gly Cys Asp Val Thr Asp Asn | | |
| | 245 | 250 255 |
| Ser Ile Phe Ser Lys Leu Pro Lys Phe Trp Glu Gly Asp Phe His Arg | | |
| | 260 | 265 270 |
| Asp Met Glu Ala Leu Asn Val Leu Pro Pro Asp Val Leu Thr Arg Val | | |
| | 275 | 280 285 |
| Ser Glu Tyr Val Pro Glu Ile Val Asn Phe Val Gln Lys Ile Val Asp | | |
| | 290 | 295 300 |
| Asn Gly Tyr Gly Tyr Val Ser Asn Gly Ser Val Tyr Phe Asp Thr Ala | | |
| 305 | 310 | 315 320 |
| Lys Phe Ala Ser Ser Glu Lys His Ser Tyr Gly Lys Leu Val Pro Glu | | |
| | 325 | 330 335 |
| Ala Val Gly Asp Gln Lys Ala Leu Gln Glu Gly Glu Gly Asp Leu Ser | | |
| | 340 | 345 350 |
| Ile Ser Ala Asp Arg Leu Ser Glu Lys Arg Ser Pro Asn Asp Phe Ala | | |
| | 355 | 360 365 |
| Leu Trp Lys Ala Ser Lys Pro Gly Glu Pro Ser Trp Pro Cys Pro Trp | | |
| | 370 | 375 380 |
| Gly Lys Gly Arg Pro Gly Trp His Ile Glu Cys Ser Ala Met Ala Gly | | |
| 385 | 390 | 395 400 |
| Thr Leu Leu Gly Ala Ser Met Asp Ile His Gly Gly Gly Phe Asp Leu | | |
| | 405 | 410 415 |
| Arg Phe Pro His His Asp Asn Glu Leu Ala Xaa Ser Glu Ala Tyr Phe | | |
| | 420 | 425 430 |
| Glu Asn Asp Cys Trp Val Arg Tyr Phe Leu His Thr Gly His Leu Thr | | |
| | 435 | 440 445 |
| Ile Ala Gly Cys Lys Met Ser Lys Ser Leu Lys Asn Phe Ile Thr Ile | | |
| | 450 | 455 460 |
| Lys Asp Ala Leu Lys Lys His Ser Ala Arg Gln Leu Arg Leu Ala Phe | | |
| 465 | 470 | 475 480 |
| Leu Met His Ser Trp Lys Asp Thr Leu Asp Tyr Ser Ser Asn Thr Met | | |

858

485 490 495
 Glu Ser Ala Leu Gln Tyr Glu Lys Phe Leu Asn Glu Phe Phe Leu Asn
 500 505 510
 Val Lys Asp Ile Leu Arg Ala Pro Val Asp Ile Thr Gly Gln Phe Glu
 515 520 525
 Lys Trp Gly Glu Glu Glu Ala Glu Leu Asn Lys Asn Phe Tyr Asp Lys
 530 535 540
 Lys Thr Ala Ile His Lys Ala Leu Cys Asp Asn Val Asp Thr Arg Thr
 545 550 555 560
 Val Met Glu Glu Met Arg Ala Leu Val Ser Gln Cys Asn Leu Tyr Met
 565 570 575
 Ala Ala Arg Lys Ala Val Arg Lys Arg Pro Asn Gln Ala Leu Leu Glu
 580 585 590
 Asn Ile Ala Leu Tyr Leu Thr His Met Leu Lys Ile Phe Gly Ala Val
 595 600 605
 Glu Glu Asp Ser Ser Leu Gly Phe Pro Val Gly Gly Pro Gly Thr Ser
 610 615 620
 Leu Ser Leu Glu Ala Thr Val Met Pro Tyr Leu Gln Val Leu
 625 630 635

<210> 908

<211> 248

<212> PRT

<213> Homo sapiens

<400> 908

Ser His Pro Leu Arg Ser Arg Leu Pro Ser Ala Thr Gly Val Gly His
 1 5 10 15
 Ala Leu Ala Arg Ser Phe Cys Arg His Leu Gly Ser Ala Phe Pro Ala
 20 25 30
 Gln Asn Ala Arg Arg Ser Thr Glu Thr Val Pro Ala Thr Glu Gln Glu
 35 40 45
 Leu Pro Gln Pro Gln Ala Glu Thr Gly Ser Gly Thr Glu Ser Asp Ser
 50 55 60
 Asp Glu Ser Val Pro Glu Leu Glu Glu Gln Asp Ser Thr Gln Ala Thr
 65 70 75 80

859

Thr Gln Gln Ala Gln Leu Ala Ala Ala Ala Glu Ile Asp Glu Glu Pro
 85 90 95
 Val Ser Lys Ala Lys Gln Ser Arg Ser Glu Lys Lys Ala Arg Lys Ala
 100 105 110
 Met Ser Lys Leu Gly Leu Arg Gln Val Thr Gly Val Thr Arg Val Thr
 115 120 125
 Ile Arg Lys Ser Lys Asn Ile Leu Phe Val Ile Thr Lys Pro Asp Val
 130 135 140
 Tyr Lys Ser Pro Ala Ser Asp Thr Tyr Ile Val Phe Gly Glu Ala Lys
 145 150 155 160
 Ile Glu Asp Leu Ser Gln Gln Ala Gln Leu Ala Ala Ala Glu Lys Phe
 165 170 175
 Lys Val Gln Gly Glu Ala Val Ser Asn Ile Gln Glu Asn Thr Gln Thr
 180 185 190
 Pro Thr Val Gln Glu Glu Ser Glu Glu Glu Glu Val Asp Glu Thr Gly
 195 200 205
 Val Glu Val Lys Asp Ile Glu Leu Val Met Ser Gln Ala Asn Val Ser
 210 215 220
 Arg Ala Lys Ala Val Arg Ala Leu Lys Asn Asn Ser Asn Asp Ile Val
 225 230 235 240
 Asn Ala Ile Met Glu Leu Thr Met
 245

<210> 909

<211> 161

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

860

<400> 909

Gln Gly Cys Cys Tyr Gly Ala Gly Arg Arg Val Ala Arg Leu Leu Ala
 1 5 10 15

Pro Leu Met Trp Arg Arg Ala Val Ser Ser Val Ala Gly Ser Ala Val
 20 25 30

Gly Ala Glu Pro Gly Leu Arg Leu Leu Ala Val Gln Arg Xaa Pro Val
 35 40 45

Glu Gln Arg Ser Ala Gly Leu Ala Arg Pro Gln Thr Leu Ser Ala Ala
 50 55 60

Cys Thr Ala Lys Pro Gly Leu Glu Glu Arg Ala Glu Gly Thr Val Asn
 65 70 75 80

Glu Gly Arg Pro Glu Ser Asp Ala Ala Asp His Thr Gly Pro Lys Phe
 85 90 95

Asp Ile Asp Met Met Val Ser Leu Leu Arg Gln Glu Asn Ala Arg Asp
 100 105 110

Ile Cys Val Ile Gln Val Pro Pro Glu Met Arg Tyr Thr Asp Tyr Phe
 115 120 125

Val Ile Val Ser Gly Thr Ser Thr Arg His Leu His Ala Met Ala Phe
 130 135 140

Tyr Val Val Lys Met Tyr Lys His Leu Lys Cys Lys Arg Xaa Pro Ser
 145 150 155 160

Cys

<210> 910

<211> 487

<212> PRT

<213> Homo sapiens

<400> 910

Lys Ala Ala Ser Gly Pro Ala Thr Ser Ile Thr Gly Val Thr Met Gly
 1 5 10 15

Ala Val Leu Gly Val Phe Ser Leu Ala Ser Trp Val Pro Cys Leu Cys
 20 25 30

Ser Gly Ala Ser Cys Leu Leu Cys Ser Cys Cys Pro Asn Ser Lys Asn
 35 40 45

Ser Thr Val Thr Arg Leu Ile Tyr Ala Phe Ile Leu Leu Leu Ser Thr
 50 55 60
 Val Val Ser Tyr Ile Met Gln Arg Lys Glu Met Glu Thr Tyr Leu Lys
 65 70 75 80
 Lys Ile Pro Gly Phe Cys Glu Gly Gly Phe Lys Ile His Glu Ala Asp
 85 90 95
 Ile Asn Ala Asp Lys Asp Cys Asp Val Leu Val Gly Tyr Lys Ala Val
 100 105 110
 Tyr Arg Ile Ser Phe Ala Met Ala Ile Phe Phe Phe Val Phe Ser Leu
 115 120 125
 Leu Met Phe Lys Val Lys Thr Ser Lys Asp Leu Arg Ala Ala Val His
 130 135 140
 Asn Gly Phe Trp Phe Phe Lys Ile Ala Ala Leu Ile Gly Ile Met Val
 145 150 155 160
 Gly Ser Phe Tyr Ile Pro Gly Gly Tyr Phe Ser Ser Val Trp Phe Val
 165 170 175
 Val Gly Met Ile Gly Ala Ala Leu Phe Ile Leu Ile Gln Leu Val Leu
 180 185 190
 Leu Val Asp Phe Ala His Ser Trp Asn Glu Ser Trp Val Asn Arg Met
 195 200 205
 Glu Glu Gly Asn Pro Arg Leu Trp Tyr Ala Ala Leu Leu Ser Phe Thr
 210 215 220
 Ser Ala Phe Tyr Ile Leu Ser Ile Ile Cys Val Gly Leu Leu Tyr Thr
 225 230 235 240
 Tyr Tyr Thr Lys Pro Asp Gly Cys Thr Glu Asn Lys Phe Phe Ile Ser
 245 250 255
 Ile Asn Leu Ile Leu Cys Val Val Ala Ser Ile Ile Ser Ile His Pro
 260 265 270
 Lys Ile Gln Glu His Gln Pro Arg Ser Gly Leu Leu Gln Ser Ser Leu
 275 280 285
 Ile Thr Leu Tyr Thr Met Tyr Leu Thr Trp Ser Ala Met Ser Asn Glu
 290 295 300
 Pro Asp Arg Ser Cys Asn Pro Asn Leu Met Ser Phe Ile Thr Arg Ile
 305 310 315 320

862

Thr Ala Pro Thr Leu Ala Pro Gly Asn Ser Thr Ala Val Val Pro Thr
 325 330 335
 Pro Thr Pro Pro Ser Lys Ser Gly Ser Leu Leu Asp Ser Asp Asn Phe
 340 345 350
 Ile Gly Leu Phe Val Phe Val Leu Cys Leu Leu Tyr Ser Ser Ile Arg
 355 360 365
 Thr Ser Thr Asn Ser Gln Val Asp Lys Leu Thr Leu Ser Gly Ser Asp
 370 375 380
 Ser Val Ile Leu Gly Asp Thr Thr Thr Ser Gly Ala Ser Asp Glu Glu
 385 390 395 400
 Asp Gly Gln Pro Arg Arg Ala Val Asp Asn Glu Lys Glu Gly Val Gln
 405 410 415
 Tyr Ser Tyr Ser Leu Phe His Leu Met Leu Cys Leu Ala Ser Leu Tyr
 420 425 430
 Ile Met Met Thr Leu Thr Ser Trp Tyr Ser Pro Asp Ala Lys Phe Gln
 435 440 445
 Ser Met Thr Ser Lys Trp Pro Ala Val Trp Val Lys Ile Ser Ser Ser
 450 455 460
 Trp Val Cys Leu Leu Leu Tyr Val Trp Thr Leu Val Ala Pro Leu Val
 465 470 475 480
 Leu Thr Ser Arg Asp Phe Ser
 485

<210> 911

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 911

Asp Pro Arg Val Arg His Arg Gly Asn Lys Val Val Lys Lys Lys Val
 1 5 10 15

Leu Val Arg Cys Arg His Phe Ile Cys Pro His Ser Leu Arg Leu Ser
 20 25 30

```
<210> 912
<211> 206
<212> PRT
<213> Homo sapiens
```

```

<400> 912
Phe Ser Leu Phe Pro Leu Ala Lys Ser Phe Asp Asp Gly Asp Tyr Phe
  1             5             10             15

Pro Val Trp Gly Thr Cys Leu Gly Phe Glu Glu Leu Ser Leu Leu Ile
      20             25             30

Ser Gly Glu Cys Leu Leu Thr Ala Thr Asp Thr Val Asp Val Ala Met
      35             40             45

Pro Leu Asn Phe Thr Gly Gly Gln Leu His Ser Arg Met Phe Gln Asn
  50             55             60

Phe Pro Thr Glu Leu Leu Leu Ser Leu Ala Val Glu Pro Leu Thr Ala
  65             70             75             80

Asn Phe His Lys Trp Ser Leu Ser Val Lys Asn Phe Thr Met Asn Glu
      85             90             95

Lys Leu Lys Lys Phe Phe Asn Val Leu Thr Thr Asn Thr Asp Gly Lys
      100            105            110

Ile Glu Phe Ile Ser Thr Met Glu Gly Tyr Lys Tyr Pro Val Tyr Gly
      115            120            125

Val Gln Trp His Pro Glu Lys Ala Pro Tyr Glu Trp Lys Asn Leu Asp
      130            135            140

```

864

Gly Ile Ser His Ala Pro Asn Ala Val Lys Thr Ala Phe Tyr Leu Ala
 145 150 155 160

Glu Phe Phe Val Asn Glu Ala Arg Lys Asn Asn His His Phe Lys Ser
 165 170 175

Glu Ser Glu Glu Glu Lys Ala Leu Ile Tyr Gln Phe Ser Pro Ile Tyr
 180 185 190

Thr Gly Asn Ile Ser Ser Phe Gln Gln Cys Tyr Ile Phe Asp
 195 200 205

<210> 913

<211> 91

<212> PRT

<213> Homo sapiens

<400> 913

Phe Ser Gly Pro Cys Pro Val Asn Thr Leu Gly Trp Glu Val Ser Ser
 1 5 10 15

Phe Ser Pro Leu Leu Ser Ser Cys Leu Asn Met Val Arg Thr Lys Ala
 20 25 30

Asp Ser Val Pro Gly Thr Tyr Arg Lys Val Val Ala Ala Arg Ala Pro
 35 40 45

Arg Lys Val Leu Gly Ser Ser Thr Ser Ala Thr Asn Ser Thr Ser Val
 50 55 60

Ser Ser Arg Lys Glu His Val Leu Cys Asn Leu Ile Thr Gln Met Met
 65 70 75 80

Lys Lys Asn Arg Thr Phe Ser Phe Ile Phe Glu
 85 90

<210> 914

<211> 178

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

865

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (154)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 914

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Leu | Ser | Thr | Arg | Gln | Arg | Ser | Gln | Ala | Lys | Pro | Pro | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Ser | Glu | Phe | Lys | Lys | Lys | Leu | Phe | Trp | Arg | Ala | Val | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Leu | Ala | Thr | Thr | Leu | Phe | Val | Phe | Ile | Ser | Ile | Gly | Ser | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Phe | Lys | Tyr | Pro | Val | Gly | Asn | Asn | Gln | Thr | Ala | Val | Gln | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Lys | Val | Ser | Leu | Ala | Phe | Gly | Leu | Ser | Ile | Ala | Thr | Leu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Val | Gly | His | Ile | Ser | Gly | Ala | His | Leu | Asn | Pro | Ala | Val | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Leu | Leu | Leu | Ser | Cys | Gln | Ile | Ser | Ile | Phe | Arg | Ala | Leu | Met |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ile | Ile | Ala | Gln | Cys | Val | Gly | Ala | Ile | Val | Ala | Thr | Ala | Ile | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Ile | Xaa | Ser | Ser | Leu | Thr | Gly | Asn | Ser | Leu | Gly | Arg | Asn | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Xaa | Gly | Val | Asn | Phe | Gly | Pro | Xaa | Pro | Gly | His | Arg | Asp | His |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asp | Pro | Pro | Ala | Gly | Ala | Met | Arg | Ala | Gly | Tyr | Tyr | Arg | Pro | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |

Ala Pro

<210> 915

<211> 377

<212> PRT

866

<213> Homo sapiens

<220>

<221> SITE

<222> (355)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 915

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Cys | Ala | His | Gly | Gln | Gly | Leu | Leu | Arg | Tyr | Phe | Tyr | Ser | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Asp | Ile | Thr | Leu | Ser | Ser | Val | Lys | Cys | Phe | His | Lys | Leu | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Tyr | Gly | Ala | Arg | Gln | Leu | Gln | Gly | Tyr | Cys | Ala | Ser | Leu | Phe | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Leu | Leu | Pro | Gln | Asp | Pro | Ser | Phe | Gln | Met | Pro | Leu | Asp | Leu | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Tyr | Ala | Val | Ala | Thr | Gly | Asp | Ala | Leu | Leu | Glu | Lys | Leu | Cys | Leu |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Phe | Leu | Ala | Trp | Asn | Phe | Glu | Ala | Leu | Thr | Gln | Ala | Glu | Ala | Trp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Pro | Ser | Val | Pro | Thr | Asp | Leu | Leu | Gln | Leu | Leu | Leu | Pro | Arg | Ser | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ala | Val | Pro | Ser | Glu | Leu | Ala | Leu | Leu | Lys | Ala | Val | Asp | Thr | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Trp | Gly | Glu | Arg | Ala | Ser | His | Glu | Glu | Val | Glu | Gly | Leu | Val | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Ile | Arg | Phe | Pro | Met | Met | Leu | Pro | Glu | Glu | Leu | Phe | Glu | Leu | Gln |
| | 145 | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Asn | Leu | Ser | Leu | Tyr | Trp | Ser | His | Glu | Ala | Leu | Phe | Gln | Lys | Lys |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Thr | Leu | Gln | Ala | Leu | Glu | Phe | His | Thr | Val | Pro | Phe | Gln | Leu | Leu | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Tyr | Lys | Gly | Leu | Asn | Leu | Thr | Glu | Asp | Thr | Tyr | Lys | Pro | Arg | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Thr | Ser | Pro | Thr | Trp | Ser | Ala | Phe | Val | Thr | Asp | Ser | Ser | Trp | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Arg | Lys | Ser | Gln | Leu | Val | Tyr | Gln | Ser | Arg | Arg | Gly | Pro | Leu | Val |

867

225 230 235 240
 Lys Tyr Ser Ser Asp Tyr Phe Gln Ala Pro Ser Asp Tyr Arg Tyr Tyr
 245 250 255
 Pro Tyr Gln Ser Phe Gln Thr Pro Gln His Pro Ser Phe Leu Phe Gln
 260 265 270
 Asp Lys Arg Val Ser Trp Ser Leu Val Tyr Leu Pro Thr Ile Gln Ser
 275 280 285
 Cys Trp Asn Tyr Gly Phe Ser Cys Ser Ser Asp Glu Leu Pro Val Leu
 290 295 300
 Gly Leu Thr Lys Ser Gly Gly Ser Asp Arg Thr Ile Ala Tyr Glu Asn
 305 310 315 320
 Lys Ala Leu Met Leu Cys Glu Gly Leu Phe Val Ala Asp Val Thr Asp
 325 330 335
 Phe Glu Gly Trp Lys Ala Ala Ile Pro Ser Ala Leu Asp Thr Asn Ser
 340 345 350
 Ser Lys Xaa Thr Ser Ser Phe Pro Cys Pro Ala Gly Thr Ser Thr Ala
 355 360 365
 Ser Ala Arg Ser Ser Ala Pro Ser Thr
 370 375

<210> 916

<211> 100

<212> PRT

<213> Homo sapiens

<400> 916

Arg Val Gln Arg Asp Thr Cys Leu Pro Pro Met Ser Leu Ser Phe His
 1 5 10 15
 Leu Pro Ser Arg Arg Met Lys Asn Pro Ser Ile Val Gly Val Leu Cys
 20 25 30
 Thr Asp Ser Gln Gly Leu Asn Leu Gly Cys Arg Gly Thr Leu Ser Asp
 35 40 45
 Glu His Ala Gly Val Ile Ser Val Leu Ala Gln Gln Ala Ala Lys Leu
 50 55 60
 Thr Ser Asp Pro Thr Asp Ile Pro Val Val Cys Leu Glu Ser Asp Asn
 65 70 75 80

Gly Asn Ile Met Ile Gln Lys His Asp Gly Ile Thr Val Ala Val His
85 90 95

Lys Met Ala Ser
100

```
<210> 917
<211> 245
<212> PRT
<213> Homo sapiens
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```
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (64)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (172)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (240)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (242)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 917
Leu Pro Pro Arg Ser Val Gly Gly Leu Gln Lys Met Arg Arg Lys Leu
1 5 10 15
Gly Leu Val Gln Val Glu Leu Glu Asp Gly Ala Leu Val Ser Lys
20 25 30

869

Leu Leu Glu Thr Met His Leu Thr Gly Ala Asp Xaa Thr Asn Thr Phe
 35 40 45
 Tyr Leu Leu Ser Ser Phe Pro Val Glu Leu Glu Ser Pro Gly Leu Xaa
 50 55 60
 Glu Phe Leu Ala Arg Leu Met Glu Gln Cys Ala Ser Leu Glu Glu Leu
 65 70 75 80
 Arg Leu Ala Phe Arg Pro Xaa Met Asp Pro Arg Gln Leu Ser Met Met
 85 90 95
 Leu Met Leu Ala Gln Ser Asn Pro Gln Leu Phe Ala Leu Met Gly Thr
 100 105 110
 Arg Ala Gly Ile Ala Arg Glu Leu Glu Arg Val Glu Gln Gln Ser Arg
 115 120 125
 Leu Glu Gln Leu Ser Ala Ala Glu Leu Gln Ser Arg Asn Gln Gly His
 130 135 140
 Trp Ala Asp Trp Leu Gln Ala Tyr Arg Ala Arg Leu Asp Lys Asp Leu
 145 150 155 160
 Glu Gly Ala Gly Asp Ala Ala Ala Trp Gln Ala Xaa Ala Arg Ala Arg
 165 170 175
 Asp Ala Arg Gln Gln Pro Glu Val Arg Ala Glu Glu Leu His Ser Arg
 180 185 190
 Arg Met Pro Phe Glu Val Ala Glu Arg Gly Asp Phe Ser Glu Val Arg
 195 200 205
 Arg Val Leu Lys Leu Phe Glu Thr Leu Tyr His Cys Glu Ala Gly Ala
 210 215 220
 Ala Thr Arg Arg Pro Arg Pro Arg Glu Ala Asp Gly Gly Gly Arg Xaa
 225 230 235 240
 Gly Xaa Phe Leu Thr
 245

<210> 918

<211> 44

<212> PRT

<213> Homo sapiens

<400> 918

Asn Ser Ala Arg Arg Ile Ser Leu Lys Glu Gly Glu Gly Lys Thr Asp

870

| | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 5 | 10 | 15 | | | | | | | | | | | | |
| Phe | Leu | Cys | Gly | Thr | Lys | Thr | Lys | Pro | Ser | Val | Ser | Leu | Cys | Glu | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Cys | Lys | Lys | Glu | Glu | Thr | Gln | Phe | Thr | His | Gly | | | | |
| | | 35 | | | | | 40 | | | | | | | | |
| <210> 919 | | | | | | | | | | | | | | | |
| <211> 160 | | | | | | | | | | | | | | | |
| <212> PRT | | | | | | | | | | | | | | | |
| <213> Homo sapiens | | | | | | | | | | | | | | | |
| <400> 919 | | | | | | | | | | | | | | | |
| Phe | Gly | Thr | Arg | Val | Thr | Ser | Gly | Gly | Ser | Arg | Asp | Ala | Val | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Glu | Pro | Pro | Lys | Met | Ala | Val | Cys | Ile | Ala | Val | Ile | Ala | Lys | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Tyr | Pro | Leu | Tyr | Ile | Arg | Ser | Thr | Pro | Thr | Glu | Asn | Glu | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | His | Tyr | Met | Val | His | Thr | Ser | Leu | Asp | Val | Val | Asp | Glu | Lys | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Met | Gly | Lys | Ala | Leu | Val | Asp | Gln | Arg | Glu | Leu | Tyr | Leu | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Leu | Tyr | Pro | Thr | Glu | Asp | Tyr | Lys | Val | Tyr | Gly | Tyr | Val | Thr | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Lys | Val | Lys | Phe | Val | Met | Val | Val | Asp | Ser | Ser | Asn | Thr | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Asp | Asn | Glu | Ile | Arg | Ser | Met | Phe | Arg | Lys | Leu | His | Asn | Ser | Tyr |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Thr | Asp | Val | Met | Cys | Asn | Pro | Phe | Tyr | Asn | Pro | Gly | Asp | Arg | Ile | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Arg | Ala | Phe | Asp | Asn | Met | Val | Thr | Ser | Met | Met | Ile | Gln | Val | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

871

<210> 920
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 920
 Leu Ala Phe Phe Leu Thr Ser Glu Gly Glu Lys Lys Val Ala Thr Tyr
 1 5 10 15
 Met Phe Glu Lys Pro Leu Lys Ser Thr Gln Ser Lys Asp Phe Met Leu
 20 25 30
 Gln Phe Gly His Met Leu Arg Val
 35 40

<210> 921
 <211> 372
 <212> PRT
 <213> Homo sapiens

<400> 921
 Leu Leu Gly Pro Ala Gly Gln Arg Ser His Ala Ala Pro Met Arg Pro
 1 5 10 15
 Leu Pro Pro Val Gly Asp Val Arg Leu Glu Leu Ser Pro Pro Pro Pro
 20 25 30
 Leu Leu Pro Val Pro Val Val Ser Gly Ser Pro Val Gly Ser Ser Gly
 35 40 45
 Arg Leu Met Ala Ser Ser Ser Ser Leu Val Pro Asp Arg Leu Arg Leu
 50 55 60
 Pro Leu Cys Phe Leu Gly Val Phe Val Cys Tyr Phe Tyr Tyr Gly Ile
 65 70 75 80
 Leu Gln Glu Lys Ile Thr Arg Gly Lys Tyr Gly Glu Gly Ala Lys Gln
 85 90 95
 Glu Thr Phe Thr Phe Ala Leu Thr Leu Val Phe Ile Gln Cys Val Ile
 100 105 110
 Asn Ala Val Phe Ala Lys Ile Leu Ile Gln Phe Phe Asp Thr Ala Arg
 115 120 125
 Val Asp Arg Thr Arg Ser Trp Leu Tyr Ala Ala Cys Ser Ile Ser Tyr
 130 135 140
 Leu Gly Ala Met Val Ser Ser Asn Ser Ala Leu Gln Phe Val Asn Tyr

872

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 |
| Pro Thr Gln Val Leu Gly Lys Ser Cys Lys Pro Ile Pro Val Met Leu | | | | | | |
| | 165 | | 170 | | 175 | |
| Leu Gly Val Thr Leu Leu Lys Lys Lys Tyr Pro Leu Ala Lys Tyr Leu | | | | | | |
| | 180 | | 185 | | 190 | |
| Cys Val Leu Leu Ile Val Ala Gly Val Ala Leu Phe Met Tyr Lys Pro | | | | | | |
| | 195 | | 200 | | 205 | |
| Lys Lys Val Val Gly Ile Glu Glu His Thr Val Gly Tyr Gly Glu Leu | | | | | | |
| | 210 | | 215 | | 220 | |
| Leu Leu Leu Leu Ser Leu Thr Leu Asp Gly Leu Thr Gly Val Ser Gln | | | | | | |
| | 225 | | 230 | | 235 | |
| Asp His Met Arg Ala His Tyr Gln Thr Gly Ser Asn His Met Met Leu | | | | | | |
| | 245 | | 250 | | 255 | |
| Asn Ile Asn Leu Trp Ser Thr Leu Leu Leu Gly Met Gly Ile Leu Phe | | | | | | |
| | 260 | | 265 | | 270 | |
| Thr Gly Glu Leu Trp Glu Phe Leu Ser Phe Ala Glu Arg Tyr Pro Ala | | | | | | |
| | 275 | | 280 | | 285 | |
| Ile Ile Tyr Asn Ile Leu Leu Phe Gly Leu Thr Ser Ala Leu Gly Gln | | | | | | |
| | 290 | | 295 | | 300 | |
| Ser Phe Ile Phe Met Thr Val Val Tyr Phe Gly Pro Leu Thr Cys Ser | | | | | | |
| | 305 | | 310 | | 315 | |
| Ile Ile Thr Thr Thr Arg Lys Phe Phe Thr Ile Leu Ala Ser Val Ile | | | | | | |
| | 325 | | 330 | | 335 | |
| Leu Phe Ala Asn Pro Ile Ser Pro Met Gln Trp Val Gly Thr Val Leu | | | | | | |
| | 340 | | 345 | | 350 | |
| Val Phe Leu Gly Leu Gly Leu Asp Ala Lys Phe Gly Lys Gly Ala Lys | | | | | | |
| | 355 | | 360 | | 365 | |
| Lys Thr Ser His | | | | | | |
| | 370 | | | | | |

<210> 922

<211> 363

<212> PRT

<213> Homo sapiens

873

<400> 922

```

Pro Ala Arg Thr Met Phe Tyr Ala His Phe Val Leu Ser Lys Arg Gly
 1              5              10              15

Pro Leu Ala Lys Ile Trp Leu Ala Ala His Trp Asp Lys Lys Leu Thr
          20              25              30

Lys Ala His Val Phe Glu Cys Asn Leu Glu Ser Ser Val Glu Ser Ile
          35              40              45

Ile Ser Pro Lys Val Lys Met Ala Leu Arg Thr Ser Gly His Leu Leu
          50              55              60

Leu Gly Val Val Arg Ile Tyr His Arg Lys Ala Lys Tyr Leu Leu Ala
          65              70              75              80

Asp Cys Asn Glu Ala Phe Ile Lys Ile Lys Met Ala Phe Arg Pro Gly
          85              90              95

Val Val Asp Leu Pro Glu Glu Asn Arg Glu Ala Ala Tyr Asn Ala Ile
          100             105             110

Thr Leu Pro Glu Glu Phe His Asp Phe Asp Gln Pro Leu Pro Asp Leu
          115             120             125

Asp Asp Ile Asp Val Ala Gln Gln Phe Ser Leu Asn Gln Ser Arg Val
          130             135             140

Glu Glu Ile Thr Met Arg Glu Glu Val Gly Asn Ile Ser Ile Leu Gln
          145             150             155             160

Glu Asn Asp Phe Gly Asp Phe Gly Met Asp Asp Arg Glu Ile Met Arg
          165             170             175

Glu Gly Ser Ala Phe Glu Asp Asp Asp Met Leu Val Ser Thr Thr Thr
          180             185             190

Ser Asn Leu Leu Leu Glu Ser Glu Gln Ser Thr Ser Asn Leu Asn Glu
          195             200             205

Lys Ile Asn His Leu Glu Tyr Glu Asp Gln Tyr Lys Asp Asp Asn Phe
          210             215             220

Gly Glu Gly Asn Asp Gly Gly Ile Leu Asp Asp Lys Leu Ile Ser Asn
          225             230             235             240

Asn Asp Gly Gly Ile Phe Asp Asp Pro Pro Ala Leu Ser Glu Ala Gly
          245             250             255

Val Met Leu Pro Glu Gln Pro Ala His Asp Asp Met Asp Glu Asp Asp
          260             265             270

```

874

Asn Val Ser Met Gly Gly Pro Asp Ser Pro Asp Ser Val Asp Pro Val
 275 280 285

Glu Pro Met Pro Thr Met Thr Asp Gln Thr Thr Leu Val Pro Asn Glu
 290 295 300

Glu Glu Ala Phe Ala Leu Glu Pro Ile Asp Ile Thr Val Lys Glu Thr
 305 310 315 320

Lys Ala Lys Arg Lys Arg Lys Leu Ile Val Asp Ser Val Lys Glu Leu
 325 330 335

Asp Ser Lys Thr Ile Arg Ala Gln Leu Ser Asp Tyr Ser Asp Ile Val
 340 345 350

Thr Thr Leu Asp Leu Ala Pro Pro Pro Arg Asn
 355 360

<210> 923

<211> 296

<212> PRT

<213> Homo sapiens

<400> 923

Val Ala Val Ile Trp Ala Tyr Trp Leu Gly Leu Lys Val Arg Arg Glu
 1 5 10 15

Tyr Arg Lys Phe Phe Arg Ala Asn Ala Gly Lys Lys Ile Tyr Glu Phe
 20 25 30

Thr Leu Gln Arg Ile Val Gln Lys Tyr Phe Leu Glu Met Lys Asn Lys
 35 40 45

Met Pro Ser Leu Ser Pro Ile Asp Lys Asn Trp Pro Ser Arg Pro Tyr
 50 55 60

Leu Phe Leu Asp Ser Thr His Lys Glu Leu Lys Arg Ile Phe His Leu
 65 70 75 80

Trp Arg Cys Lys Lys Tyr Arg Asp Gln Phe Thr Asp Gln Gln Lys Leu
 85 90 95

Ile Tyr Glu Glu Lys Leu Glu Ala Ser Glu Leu Phe Lys Asp Lys Lys
 100 105 110

Ala Leu Tyr Pro Ser Ser Val Gly Gln Pro Phe Gln Gly Ala Tyr Leu
 115 120 125

875

Glu Ile Asn Lys Asn Pro Lys Tyr Lys Lys Leu Lys Asp Ala Ile Glu
 130 135 140
 Glu Lys Ile Ile Ile Ala Glu Val Val Asn Lys Ile Asn Arg Ala Asn
 145 150 155 160
 Gly Lys Ser Thr Ser Arg Ile Phe Leu Leu Thr Asn Asn Asn Leu Leu
 165 170 175
 Leu Ala Asp Gln Lys Ser Gly Gln Ile Lys Ser Glu Val Pro Leu Val
 180 185 190
 Asp Val Thr Lys Val Ser Met Ser Ser Gln Asn Asp Gly Phe Phe Ala
 195 200 205
 Val His Leu Lys Glu Gly Ser Glu Ala Ala Ser Lys Gly Asp Phe Leu
 210 215 220
 Phe Ser Ser Asp His Leu Ile Glu Met Ala Thr Lys Leu Tyr Arg Thr
 225 230 235 240
 Thr Leu Ser Gln Thr Lys Gln Lys Leu Asn Ile Glu Ile Ser Asp Glu
 245 250 255
 Phe Leu Val Gln Phe Arg Gln Asp Lys Val Cys Val Lys Phe Ile Gln
 260 265 270
 Gly Asn Gln Lys Asn Gly Ser Val Pro Thr Cys Lys Arg Lys Asn Asn
 275 280 285
 Arg Leu Leu Glu Val Ala Val Pro
 290 295

<210> 924

<211> 91

<212> PRT

<213> Homo sapiens

<400> 924

His Phe Ser Ile Asn Tyr Asn Gln Lys Ser Asp Leu Leu Lys Glu Lys
 1 5 10 15
 Ser Asp Cys Lys Ser Phe Gln Gly Gln Thr Ala Thr Glu Pro Pro Thr
 20 25 30
 Pro Lys Gln Glu Thr Leu Val Lys Val Gln Glu Ala Arg Arg Phe Ser
 35 40 45
 Pro Thr Lys Val Gln Leu Gly Asn Asp Ala Glu Arg Met Thr Thr Thr

876

50 55 60
 Cys Asn Ser Arg Lys Met Leu Ala Ser Arg Val Arg Val Thr Ser Glu
 65 70 75 80
 Cys His Lys Ser Ser Leu Ser His Cys Leu Ile
 85 90

<210> 925
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 925
 Asn Ser Ala Arg Ala Gly Gly Arg Ala Val Leu Ser Gly Glu Pro Glu
 1 5 10 15
 Ala Asn Met Asp Gln Glu Thr Val Gly Asn Val Val Leu Leu Ala Ile
 20 25 30
 Val Thr Leu Ile Ser Val Val Gln Asn Gly Phe Phe Ala His Lys Val
 35 40 45
 Glu His Glu Ser Arg Thr Gln Asn Gly Arg Ser Phe Gln Arg Thr Gly
 50 55 60
 Thr Leu Ala Phe Glu Arg Val Tyr Thr Ala Asn Gln Asn Cys Val Asp
 65 70 75 80
 Ala Tyr Pro Thr Phe Leu Ala Val Leu Trp Ser Ala Gly Leu Leu Cys
 85 90 95
 Ser Gln Val Pro Ala Ala Phe Ala Gly Leu Met Tyr Leu Phe Val Arg
 100 105 110
 Gln Lys Tyr Phe Val Gly Tyr Leu Gly Glu Arg Thr Gln Ser Thr Pro
 115 120 125
 Gly Tyr Ile Phe Gly Glu Thr His His Thr Leu Pro Val Pro His Val
 130 135 140
 Arg Cys Trp His Ile Gln Leu Leu Pro His Leu Leu Phe Arg Lys
 145 150 155

<210> 926
 <211> 303
 <212> PRT

877

<213> Homo sapiens

<400> 926

Gly Ser Leu Ala Ser Pro Pro Ser Leu Gly Ser Met Gly Glu Lys Ser
 1 5 10 15

Glu Asn Cys Gly Val Pro Glu Asp Leu Leu Asn Gly Leu Lys Val Thr
 20 25 30

Asp Thr Gln Glu Ala Glu Cys Ala Gly Pro Pro Val Pro Asp Pro Lys
 35 40 45

Asn Gln His Ser Gln Ser Lys Leu Leu Arg Asp Asp Glu Ala His Leu
 50 55 60

Gln Glu Asp Gln Gly Glu Glu Glu Cys Phe His Asp Cys Ser Ala Ser
 65 70 75 80

Phe Glu Glu Glu Pro Gly Ala Asp Lys Val Glu Asn Lys Ser Asn Glu
 85 90 95

Asp Val Asn Ser Ser Glu Leu Asp Glu Glu Tyr Leu Ile Glu Leu Glu
 100 105 110

Lys Asn Met Ser Asp Glu Glu Lys Gln Lys Arg Arg Glu Glu Ser Thr
 115 120 125

Arg Leu Lys Glu Glu Gly Asn Glu Gln Phe Lys Lys Gly Asp Tyr Ile
 130 135 140

Glu Ala Glu Ser Ser Tyr Ser Arg Ala Leu Glu Met Cys Pro Ser Cys
 145 150 155 160

Phe Gln Lys Glu Arg Ser Ile Leu Phe Ser Asn Arg Ala Ala Ala Arg
 165 170 175

Met Lys Gln Asp Lys Lys Glu Met Ala Ile Asn Asp Cys Ser Lys Ala
 180 185 190

Ile Gln Leu Asn Pro Ser Tyr Ile Arg Ala Ile Leu Arg Arg Ala Glu
 195 200 205

Leu Tyr Glu Lys Thr Asp Lys Leu Asp Glu Ala Leu Glu Asp Tyr Lys
 210 215 220

Ser Ile Leu Glu Lys Asp Pro Ser Ile His Gln Ala Arg Glu Ala Cys
 225 230 235 240

Met Arg Leu Pro Lys Gln Ile Glu Glu Arg Asn Glu Arg Leu Lys Glu
 245 250 255

878

Glu Met Leu Gly Lys Leu Lys Asp Leu Gly Asn Leu Val Leu Arg Pro
 260 265 270

Phe Gly Leu Ser Thr Glu Asn Phe Gln Ile Lys Gln Asp Ser Ser Thr
 275 280 285

Gly Ser Tyr Ser Ile Asn Phe Val Gln Asn Pro Asn Asn Asn Arg
 290 295 300

<210> 927

<211> 329

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 927

Xaa Gly Gly Cys Cys Ser Gly Pro Gly His Ser Lys Arg Arg Arg Gln
 1 5 10 15

Ala Pro Gly Val Gly Ala Val Gly Gly Gly Ser Pro Glu Arg Glu Glu
 20 25 30

Val Gly Ala Gly Tyr Asn Ser Glu Asp Glu Tyr Glu Ala Ala Ala Ala
 35 40 45

Arg Ile Glu Ala Met Asp Pro Ala Thr Val Glu Gln Gln Glu His Trp
 50 55 60

Phe Glu Lys Ala Leu Arg Asp Lys Lys Gly Phe Ile Ile Lys Gln Met
 65 70 75 80

Lys Glu Asp Gly Ala Cys Leu Phe Arg Ala Val Ala Asp Gln Val Tyr
 85 90 95

Gly Asp Gln Asp Met His Glu Val Val Arg Lys His Cys Met Asp Tyr
 100 105 110

Leu Met Lys Asn Ala Asp Tyr Phe Ser Asn Tyr Val Thr Glu Asp Phe
 115 120 125

Thr Thr Tyr Ile Asn Arg Lys Arg Lys Asn Asn Cys His Gly Asn His
 130 135 140

Ile Glu Met Gln Ala Met Ala Glu Met Tyr Asn Arg Pro Val Glu Val
 145 150 155 160

879

Tyr Gln Tyr Ser Thr Glu Pro Ile Asn Thr Phe His Gly Ile His Gln
 165 170 175
 Asn Glu Asp Glu Pro Ile Arg Val Ser Tyr His Arg Asn Ile His Tyr
 180 185 190
 Asn Ser Val Val Asn Pro Asn Lys Ala Thr Ile Gly Val Gly Leu Gly
 195 200 205
 Leu Pro Ser Phe Lys Pro Gly Phe Ala Glu Gln Ser Leu Met Lys Asn
 210 215 220
 Ala Ile Lys Thr Ser Glu Glu Ser Trp Ile Glu Gln Gln Met Leu Glu
 225 230 235 240
 Asp Lys Lys Arg Ala Thr Asp Trp Glu Ala Thr Asn Glu Ala Ile Glu
 245 250 255
 Glu Gln Val Ala Arg Glu Ser Tyr Leu Gln Trp Leu Arg Asp Gln Glu
 260 265 270
 Lys Gln Ala Arg Gln Val Arg Gly Pro Ser Gln Pro Arg Lys Ala Ser
 275 280 285
 Ala Thr Cys Ser Ser Ala Thr Ala Ala Ala Ser Ser Gly Leu Glu Glu
 290 295 300
 Trp Thr Ser Arg Ser Pro Arg Gln Glu Phe Gln Pro Arg His Leu Ser
 305 310 315 320
 Thr Leu Ser Cys Met Leu Asn Trp Ala
 325

<210> 928

<211> 436

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (210)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

880

<220>

<221> SITE

<222> (262)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 928

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Phe | Leu | Arg | Asn | Phe | Lys | Leu | Leu | Thr | Lys | Arg | Glu | Phe | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Glu | Asn | Gln | Glu | His | Tyr | His | Ile | Val | Gln | Lys | Phe | Leu | Ile | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Asp | Ile | Asp | Gly | Leu | Met | Asp | Glu | Phe | Ser | Lys | Trp | Leu | Ser | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Asn | Asn | Leu | Pro | Gly | His | Leu | Leu | Arg | Phe | Met | Thr | His | Leu |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| Ile | Leu | Phe | Phe | Arg | Thr | Leu | Gly | Leu | Gln | Thr | Lys | Glu | Glu | Val | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Glu | Val | Leu | Lys | Thr | Tyr | Ile | Gln | Leu | Leu | Ile | Arg | Glu | Lys | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Asn | Leu | Ile | Ala | Phe | Tyr | Thr | Cys | His | Leu | Pro | Gln | Asp | Leu | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Val | Ala | Gln | Tyr | Ala | Leu | Phe | Leu | Glu | Ser | Val | Thr | Glu | Phe | Glu | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | His | His | Cys | Leu | Glu | Leu | Ala | Lys | Glu | Ala | Asp | Leu | Asp | Val | Ala |
| | 130 | | | | | | 135 | | | | 140 | | | | |
| Thr | Ile | Thr | Lys | Thr | Val | Val | Glu | Asn | Ile | Arg | Lys | Lys | Asp | Asn | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Phe | Ser | His | His | Asp | Leu | Ala | Pro | Ala | Leu | Asp | Thr | Gly | Thr | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Glu | Asp | Arg | Leu | Lys | Ile | Asp | Val | Ile | Asp | Trp | Leu | Val | Phe | Asp |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Pro | Ala | Gln | Arg | Ala | Glu | Ala | Leu | Lys | Gln | Gly | Asn | Ala | Ile | Met | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Xaa | Leu | Ala | Ser | Lys | Lys | His | Xaa | Ala | Ala | Lys | Glu | Val | Phe | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Ile | Pro | Gln | Asp | Ser | Ile | Ala | Glu | Ile | Tyr | Asn | Gln | Cys | Glu | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

881

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Met | Glu | Ser | Pro | Leu | Pro | Ala | Glu | Asp | Asp | Asn | Ala | Ile | Arg |
| | | | | 245 | | | | 250 | | | | 255 | | | |
| Glu | His | Leu | Cys | Ile | Xaa | Ala | Tyr | Leu | Glu | Ala | His | Glu | Thr | Phe | Asn |
| | | | | 260 | | | | 265 | | | | 270 | | | |
| Glu | Trp | Phe | Lys | His | Met | Asn | Ser | Val | Pro | Gln | Lys | Pro | Ala | Leu | Ile |
| | | | | 275 | | | | 280 | | | | 285 | | | |
| Pro | Gln | Pro | Thr | Phe | Thr | Glu | Lys | Val | Ala | His | Glu | His | Lys | Glu | Lys |
| | | | | 290 | | | | 295 | | | | 300 | | | |
| Lys | Tyr | Glu | Met | Asp | Phe | Gly | Ile | Trp | Lys | Gly | His | Leu | Asp | Ala | Leu |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Thr | Ala | Asp | Val | Lys | Glu | Lys | Met | Tyr | Asn | Val | Leu | Leu | Phe | Val | Asp |
| | | | | 325 | | | | 330 | | | | 335 | | | |
| Gly | Gly | Trp | Met | Val | Asp | Val | Arg | Glu | Asp | Ala | Lys | Glu | Asp | His | Glu |
| | | | | 340 | | | | 345 | | | | 350 | | | |
| Arg | Thr | His | Gln | Met | Val | Leu | Leu | Arg | Lys | Leu | Cys | Leu | Pro | Met | Leu |
| | | | | 355 | | | | 360 | | | | 365 | | | |
| Cys | Phe | Leu | Leu | His | Thr | Ile | Leu | His | Ser | Thr | Gly | Gln | Tyr | Gln | Glu |
| | | | | 370 | | | | 375 | | | | 380 | | | |
| Cys | Leu | Gln | Leu | Ala | Asp | Met | Val | Ser | Ser | Glu | Arg | His | Lys | Leu | Tyr |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Leu | Val | Phe | Ser | Lys | Glu | Glu | Leu | Arg | Lys | Leu | Leu | Gln | Lys | Leu | Arg |
| | | | | 405 | | | | 410 | | | | 415 | | | |
| Glu | Ser | Ser | Leu | Met | Leu | Leu | Asp | Gln | Gly | Leu | Asp | Pro | Leu | Gly | Tyr |
| | | | | 420 | | | | 425 | | | | 430 | | | |
| Glu | Ile | Gln | Leu | | | | | | | | | | | | |
| 435 | | | | | | | | | | | | | | | |

882

<400> 929

```

Asp Ala Asp Val Gln Phe Leu Ala Ser Val Leu Pro Pro Asp Thr Asp
 1              5              10              15
Pro Ala Phe Phe Glu His Leu Arg Ala Leu Asp Cys Ser Glu Val Thr
      20              25              30
Val Arg Ala Leu Pro Glu Gly Ser Leu Ala Phe Pro Gly Val Pro Leu
      35              40              45
Leu Gln Val Ser Gly Pro Leu Leu Val Val Gln Leu Leu Glu Thr Pro
      50              55              60
Leu Leu Cys Leu Val Ser Tyr Ala Ser Leu Val Ala Thr Asn Ala Ala
      65              70              75              80
Arg Leu Arg Leu Ile Ala Gly Pro Glu Lys Arg Leu Leu Glu Met Gly
      85              90              95
Leu Arg Arg Ala Gln Gly Pro Asp Gly Gly Leu Thr Ala Ser Thr Tyr
      100             105             110
Ser Tyr Leu Gly Gly Phe Asp Ser Ser Ser Asn Val Leu Ala Gly Gln
      115             120             125
Leu Arg Gly Val Pro Val Ala Gly Thr Leu Ala His Ser Phe Val Thr
      130             135             140
Ser Phe Ser Gly Ser Glu Val Pro Leu Thr Arg Cys Trp Gly Xaa Ser
      145             150             155             160
Leu

```

<210> 930

<211> 741

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

883

<220>

<221> SITE

<222> (282)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 930

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Lys | Ile | Glu | Ala | Asn | Xaa | Asp | His | Met | Gly | Phe | His | Phe | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Thr | Gly | Xaa | Pro | Ala | Pro | Ser | Thr | Glu | Thr | Glu | Leu | Asp | Val | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Thr | Ala | Thr | Ser | Leu | Pro | Ile | Pro | Arg | Lys | Ser | Ala | Thr | Val | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Glu | Ile | Glu | Gly | Ile | Lys | Ala | Glu | Ala | Lys | Ala | Leu | Asp | Asp | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Glu | Ser | Ser | Thr | Leu | Ser | Asp | Gly | Gln | Ala | Ile | Ala | Asp | Gln | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Glu | Ile | Ile | Pro | Thr | Leu | Gly | Gln | Phe | Glu | Arg | Thr | Gln | Glu | Glu | Tyr |
| | | | | | 85 | | | | 90 | | | | | 95 | |
| Glu | Asp | Lys | Lys | His | Ala | Gly | Pro | Ser | Phe | Gln | Pro | Glu | Phe | Ser | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ala | Glu | Glu | Ala | Leu | Val | Asp | His | Thr | Pro | Tyr | Leu | Ser | Ile | Ala |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Thr | Thr | His | Leu | Met | Asp | Gln | Ser | Val | Thr | Glu | Val | Pro | Asp | Val | Met |
| | | 130 | | | | 135 | | | | | | 140 | | | |
| Glu | Gly | Ser | Asn | Pro | Pro | Tyr | Tyr | Thr | Asp | Thr | Thr | Leu | Ala | Val | Ser |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Thr | Phe | Ala | Lys | Leu | Ser | Ser | Gln | Thr | Pro | Ser | Ser | Pro | Leu | Thr | Ile |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Tyr | Ser | Gly | Ser | Glu | Ala | Ser | Gly | His | Thr | Glu | Ile | Pro | Gln | Pro | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Pro | Gly | Ile | Asp | Val | Gly | Ser | Ser | Val | Met | Ser | Pro | Gln | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Phe | Lys | Glu | Ile | His | Val | Asn | Ile | Glu | Ala | Thr | Phe | Lys | Pro | Ser |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ser | Glu | Glu | Tyr | Leu | His | Ile | Thr | Glu | Pro | Pro | Ser | Leu | Ser | Pro | Asp |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |

884

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Lys | Leu | Glu | Pro | Ser | Glu | Asp | Asp | Gly | Lys | Pro | Glu | Leu | Leu | Glu | 245 | 250 | 255 | |
| Glu | Met | Glu | Ala | Ser | Pro | Thr | Glu | Leu | Ile | Ala | Val | Glu | Gly | Thr | Glu | 260 | 265 | 270 | |
| Ile | Leu | Gln | Asp | Phe | Gln | Asn | Lys | Thr | Xaa | Gly | Gln | Val | Ser | Gly | Glu | 275 | 280 | 285 | |
| Ala | Ile | Lys | Met | Phe | Pro | Thr | Ile | Lys | Thr | Pro | Glu | Ala | Gly | Thr | Val | 290 | 295 | 300 | |
| Ile | Thr | Thr | Ala | Asp | Glu | Ile | Glu | Leu | Glu | Gly | Ala | Thr | Gln | Trp | Pro | 305 | 310 | 315 | 320 |
| His | Ser | Thr | Ser | Ala | Ser | Ala | Thr | Tyr | Gly | Val | Glu | Ala | Gly | Val | Val | 325 | 330 | 335 | |
| Pro | Trp | Leu | Ser | Pro | Gln | Thr | Ser | Glu | Arg | Pro | Thr | Leu | Ser | Ser | Ser | 340 | 345 | 350 | |
| Pro | Glu | Ile | Asn | Pro | Glu | Thr | Gln | Ala | Ala | Leu | Ile | Arg | Gly | Gln | Asp | 355 | 360 | 365 | |
| Ser | Thr | Ile | Ala | Ala | Ser | Glu | Gln | Gln | Val | Ala | Ala | Arg | Ile | Leu | Asp | 370 | 375 | 380 | |
| Ser | Asn | Asp | Gln | Ala | Thr | Val | Asn | Pro | Val | Glu | Phe | Asn | Thr | Glu | Val | 385 | 390 | 395 | 400 |
| Ala | Thr | Pro | Pro | Phe | Ser | Leu | Leu | Glu | Thr | Ser | Asn | Glu | Thr | Asp | Phe | 405 | 410 | 415 | |
| Leu | Ile | Gly | Ile | Asn | Glu | Glu | Ser | Val | Glu | Gly | Thr | Ala | Ile | Tyr | Leu | 420 | 425 | 430 | |
| Pro | Gly | Pro | Asp | Arg | Cys | Lys | Met | Asn | Pro | Cys | Leu | Asn | Gly | Gly | Thr | 435 | 440 | 445 | |
| Cys | Tyr | Pro | Thr | Glu | Thr | Ser | Tyr | Val | Cys | Thr | Cys | Val | Pro | Gly | Tyr | 450 | 455 | 460 | |
| Ser | Gly | Asp | Gln | Cys | Glu | Leu | Asp | Phe | Asp | Glu | Cys | His | Ser | Asn | Pro | 465 | 470 | 475 | 480 |
| Cys | Arg | Asn | Gly | Ala | Thr | Cys | Val | Asp | Gly | Phe | Asn | Thr | Phe | Arg | Cys | 485 | 490 | 495 | |
| Leu | Cys | Leu | Pro | Ser | Tyr | Val | Gly | Ala | Leu | Cys | Glu | Gln | Asp | Thr | Glu | 500 | 505 | 510 | |

885

Thr Cys Asp Tyr Gly Trp His Lys Phe Gln Gly Gln Cys Tyr Lys Tyr
 515 520 525
 Phe Ala His Arg Arg Thr Trp Asp Ala Ala Glu Arg Glu Cys Arg Leu
 530 535 540
 Gln Gly Ala His Leu Thr Ser Ile Leu Ser His Glu Glu Gln Met Phe
 545 550 555 560
 Val Asn Arg Val Gly His Asp Tyr Gln Trp Ile Gly Leu Asn Asp Lys
 565 570 575
 Met Phe Glu His Asp Phe Arg Trp Thr Asp Gly Ser Thr Leu Gln Tyr
 580 585 590
 Glu Asn Trp Arg Pro Asn Gln Pro Asp Ser Phe Phe Ser Ala Gly Glu
 595 600 605
 Asp Cys Val Val Ile Ile Trp His Glu Asn Gly Gln Trp Asn Asp Val
 610 615 620
 Pro Cys Asn Tyr His Leu Thr Tyr Thr Cys Lys Lys Gly Thr Val Ala
 625 630 635 640
 Cys Gly Gln Pro Pro Val Val Glu Asn Ala Lys Thr Phe Gly Lys Met
 645 650 655
 Lys Pro Arg Tyr Glu Ile Asn Ser Leu Ile Arg Tyr His Cys Lys Asp
 660 665 670
 Gly Phe Ile Gln Arg His Leu Pro Thr Ile Arg Cys Leu Gly Asn Gly
 675 680 685
 Arg Trp Ala Ile Pro Lys Ile Thr Cys Met Asn Pro Ser Ala Tyr Gln
 690 695 700
 Arg Thr Tyr Ser Met Lys Tyr Phe Lys Asn Ser Ser Ser Ala Lys Asp
 705 710 715 720
 Asn Ser Ile Asn Thr Ser Lys His Asp His Arg Trp Ser Arg Arg Trp
 725 730 735
 Gln Glu Ser Arg Arg
 740

<210> 931

<211> 209

<212> PRT

<213> Homo sapiens

886

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 931

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Ala | Gly | Asp | Gln | Leu | Val | Pro | Asp | Asn | Leu | Lys | Glu | Thr | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Lys | Gly | Asn | Val | Val | Leu | Lys | Gly | Glu | Xaa | Ser | Ala | Arg | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Pro | Ser | Asn | Met | Trp | Val | Glu | Ala | Trp | Glu | Thr | Ala | Lys | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Ala | Arg | Arg | Gln | Arg | Arg | Leu | Phe | Asp | Asp | Thr | Arg | Glu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Val | Leu | His | Tyr | Leu | Ala | Ile | Gln | Lys | Pro | Ala | Asp | Leu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | His | Leu | Leu | Pro | Cys | Val | Ile | His | Ala | Ala | Val | Leu | Lys | Val | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Glu | Ser | Leu | Glu | Asn | Ile | Ser | Ser | Val | Lys | Lys | Ile | Ile | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ile | Ile | Ser | His | Ser | Ser | Lys | Val | Leu | His | Phe | Pro | Asn | Pro | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Lys | Lys | Leu | Glu | Glu | Ile | Ile | His | Gln | Ile | Thr | Asn | Val | Glu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Ala | Arg | Ala | Arg | Ser | Leu | Lys | Ala | Lys | Phe | Gly | Thr | Glu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Glu | Gln | Glu | Glu | Glu | Lys | Glu | Asp | Leu | Glu | Arg | Phe | Val | Ser | Cys |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Glu | Gln | Pro | Glu | Val | Leu | Val | Thr | Gly | Ala | Gly | Arg | Gly | His |
| | | | 180 | | | | | | 185 | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Arg | Ile | Ile | His | Lys | Leu | Phe | Val | Asn | Ala | Gln | Arg | Cys | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Leu

887

<210> 932
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 932
 Leu Leu Glu Val Pro Glu Met Gly Leu Thr Phe Ile Lys Gln Ile Ala
 1 5 10 15
 Tyr Tyr Asp Leu Ala Ala Ala Thr Val Gln Leu His Ile Asn Ser Thr
 20 25 30
 Asp Gln Thr Ile Cys Ile Trp His His Leu Leu Thr His Asp Met Arg
 35 40 45
 Leu Phe Cys Ile Asn Cys Tyr Asp Gly
 50 55

<210> 933
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 933
 Ile Lys Glu Glu Ser Asp Tyr His Asp Leu Glu Ser Val Val Gln Gln
 1 5 10 15
 Val Glu Gln Asn Leu Glu Leu Met Thr Lys Arg Ala Val Lys Ala Glu
 20 25 30
 Asn His Val Val Lys Leu Lys Gln Glu Ile Ser Leu Leu Gln Ala Gln
 35 40 45
 Val Ser Asn Phe Gln Arg Glu Asn Glu Ala Leu Arg Cys Gly Gln Gly
 50 55 60
 Ala Ser Leu Thr Val Val Lys Gln Asn Ala Asp Val Ala Leu Gln Asn
 65 70 75 80
 Leu Arg Val Val Met Asn Ser Ala Gln Ala Ser Ile Lys Gln Leu Val
 85 90 95
 Ser Gly Ala Glu Thr Leu Asn Leu Val Ala Glu Ile Leu Lys Ser Ile
 100 105 110
 Asp Arg Ile Ser Glu Val Lys Asp Glu Glu Glu Asp Ser
 115 120 125

888

<210> 934

<211> 306

<212> PRT

<213> Homo sapiens

<400> 934

```

Pro Thr Phe Ser Arg Ala Val Ala Thr Met Phe Ser Arg Ala Gly Val
  1              5              10              15

Ala Gly Leu Ser Ala Trp Thr Leu Gln Pro Gln Trp Ile Gln Val Arg
      20              25              30

Asn Met Ala Thr Leu Lys Asp Ile Thr Arg Arg Leu Lys Ser Ile Lys
      35              40              45

Asn Ile Gln Lys Ile Thr Lys Ser Met Lys Met Val Ala Ala Ala Lys
      50              55              60

Tyr Ala Arg Ala Glu Arg Glu Leu Lys Pro Ala Arg Ile Tyr Gly Leu
      65              70              75              80

Gly Ser Leu Ala Leu Tyr Glu Lys Ala Asp Ile Lys Gly Pro Glu Asp
      85              90              95

Lys Lys Lys His Leu Leu Ile Gly Val Ser Ser Asp Arg Gly Leu Cys
      100             105             110

Gly Ala Ile His Ser Ser Ile Ala Lys Gln Met Lys Ser Glu Val Ala
      115             120             125

Thr Leu Thr Ala Ala Gly Lys Glu Val Met Leu Val Gly Ile Gly Asp
      130             135             140

Lys Ile Arg Gly Ile Leu Tyr Arg Thr His Ser Asp Gln Phe Leu Val
      145             150             155             160

Ala Phe Lys Glu Val Gly Arg Lys Pro Pro Thr Phe Gly Asp Ala Ser
      165             170             175

Val Ile Ala Leu Glu Leu Leu Asn Ser Gly Tyr Glu Phe Asp Glu Gly
      180             185             190

Ser Ile Ile Phe Asn Lys Phe Arg Ser Val Ile Ser Tyr Lys Thr Glu
      195             200             205

Glu Lys Pro Ile Phe Ser Leu Asn Thr Val Ala Ser Ala Asp Ser Met
      210             215             220

Ser Ile Tyr Asp Asp Ile Asp Ala Asp Val Leu Gln Asn Tyr Gln Glu
      225             230             235             240

```

Tyr Asn Leu Ala Asn Ile Ile Tyr Tyr Ser Leu Lys Glu Ser Thr Thr
245 250 255

Ser Glu Gln Ser Ala Arg Met Thr Ala Met Asp Asn Ala Ser Lys Asn
260 265 270

Ala Ser Glu Met Ile Asp Lys Leu Thr Leu Thr Phe Asn Arg Thr Arg
275 280 285

Gln Ala Val Ile Thr Lys Glu Leu Ile Glu Ile Ile Ser Gly Ala Ala
290 295 300

Ala Leu
305

<210> 935

<211> 135

<212> PRT

<213> Homo sapiens

<400> 935

Gly Ala Leu Cys Ala Ala Ser Val Pro Arg Cys Val Trp Ser Ser Ala
1 5 10 15

Gly Val Val Ala Leu Phe Glu Glu His Cys Ala Pro Leu Val Trp Val
20 25 30

Tyr Thr Tyr Glu Cys Cys His Tyr Met Cys Ser Ala Leu Leu Ser Leu
35 40 45

Ser Cys Pro Cys Pro Ala Pro Ser Glu Arg Ala Ala Gly Leu Cys Cys
50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Val | Val | Pro | Cys | His | Lys | Gly | Met | Pro | Arg | Leu | Thr | Asp | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Ser Val Lys Thr Lys Asp Val Trp Glu Ile Pro Arg Glu Ser Leu Gln
85 90 95

Leu Ile Lys Arg Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly
100 105 110

Met Leu Arg Leu Asn Tyr Ser Leu Ile Ser Phe Pro Val Trp Lys Ile
115 120 125

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asn | Thr | Lys | Asp | Gly | Arg |
| | 130 | | | | | 135 |

890

<210> 936

<211> 284

<212> PRT

<213> Homo sapiens

<400> 936

```

Leu Ser Gly Thr Thr Tyr Ala Arg Ala Cys Arg Ser Gln Cys Ala Ser
 1              5              10              15

Ala Ala Gly Gly Cys Thr Gly Gly Ala Gly Gly Gly Gly Gly Gly Gly
      20              25              30

Gly Gly Trp Gly Gly Ala Gly Gly Lys Cys Cys Asp Ala Val Pro Gly
      35              40              45

Arg Gly Arg Arg Val Glu Ala Glu Tyr Gln Phe Pro Ser Gly Lys Ala
      50              55              60

Ala Met Ala Ile Phe Ser Val Tyr Val Val Asn Lys Ala Gly Gly Leu
      65              70              75              80

Ile Tyr Gln Leu Asp Ser Tyr Ala Pro Arg Ala Glu Ala Glu Lys Thr
      85              90              95

Phe Ser Tyr Pro Leu Asp Leu Leu Leu Lys Leu His Asp Glu Arg Val
      100              105              110

Leu Val Ala Phe Gly Gln Arg Asp Gly Ile Arg Val Gly His Ala Val
      115              120              125

Leu Ala Ile Asn Gly Met Asp Val Asn Gly Arg Tyr Thr Ala Asp Gly
      130              135              140

Lys Glu Val Leu Glu Tyr Leu Gly Asn Pro Ala Asn Tyr Pro Val Ser
      145              150              155              160

Ile Arg Phe Gly Arg Pro Arg Leu Thr Ser Asn Glu Lys Leu Met Leu
      165              170              175

Ala Ser Met Phe His Ser Leu Phe Ala Ile Gly Ser Gln Leu Ser Pro
      180              185              190

Glu Gln Gly Ser Ser Gly Ile Glu Met Leu Glu Thr Asp Thr Phe Lys
      195              200              205

Leu His Cys Tyr Gln Thr Leu Thr Gly Ile Lys Phe Val Val Leu Ala
      210              215              220

Asp Pro Arg Gln Ala Gly Ile Asp Ser Leu Leu Arg Lys Ile Tyr Glu

```


891

225 230 235 240
 Ile Tyr Ser Asp Phe Ala Leu Lys Asn Pro Phe Tyr Ser Leu Glu Met
 245 250 255
 Pro Ile Arg Cys Glu Leu Phe Asp Gln Asn Leu Lys Leu Ala Leu Glu
 260 265 270
 Val Ala Glu Lys Ala Gly Thr Phe Gly Pro Gly Ser
 275 280

<210> 937

<211> 338

<212> PRT

<213> Homo sapiens

<400> 937

Pro Val Ser Pro Leu His Arg Glu Glu Gly Asp Lys Trp Gly Glu Val
 1 5 10 15
 Trp Cys Gln Met Gly Trp Arg Arg Lys Arg Val Pro Gln Arg Gly Arg
 20 25 30
 Lys Ala Pro Pro Pro Gln Leu His Gly Asn Ile Asn Asn Leu Tyr Phe
 35 40 45
 Pro Ile Arg Trp Arg Asp Arg Leu His Trp Asp Ser Pro Asn Pro Ala
 50 55 60
 Ala Glu Cys Gln Arg Pro Arg Ser Thr Leu Val Ser Arg Lys Pro Gly
 65 70 75 80
 Pro Gly Arg Ile Thr Trp Asp Glu Leu Ala Ala Ser Gly Leu Pro Ser
 85 90 95
 Cys Asp Ala Ala Val Asn Leu Ala Gly Glu Asn Ile Leu Asn Pro Leu
 100 105 110
 Arg Arg Trp Asn Glu Thr Phe Gln Lys Glu Val Leu Gly Ser Arg Leu
 115 120 125
 Glu Thr Thr Gln Leu Leu Ala Lys Ala Ile Thr Lys Ala Pro Gln Pro
 130 135 140
 Pro Lys Ala Trp Val Leu Val Thr Gly Val Ala Tyr Tyr Gln Pro Ser
 145 150 155 160
 Leu Thr Ala Glu Tyr Asp Glu Asp Ser Pro Gly Gly Asp Phe Asp Phe
 165 170 175

892

Phe Ser Asn Leu Val Thr Lys Trp Glu Ala Ala Ala Arg Leu Pro Gly
 180 185 190
 Asp Ser Thr Arg Gln Val Val Val Arg Ser Gly Val Val Leu Gly Arg
 195 200 205
 Gly Gly Gly Ala Met Gly His Met Leu Leu Pro Phe Arg Leu Gly Leu
 210 215 220
 Gly Gly Pro Ile Gly Ser Gly His Gln Phe Phe Pro Trp Ile His Ile
 225 230 235 240
 Gly Asp Leu Ala Gly Ile Leu Thr His Ala Leu Glu Ala Asn His Val
 245 250 255
 His Gly Val Leu Asn Gly Val Ala Pro Ser Ser Ala Thr Asn Ala Glu
 260 265 270
 Phe Ala Gln Thr Phe Gly Ala Ala Leu Gly Arg Arg Ala Phe Ile Pro
 275 280 285
 Leu Pro Ser Ala Val Val Gln Ala Val Phe Gly Arg Gln Arg Ala Ile
 290 295 300
 Met Leu Leu Glu Gly Gln Lys Val Ile Pro Arg Arg Thr Leu Ala Thr
 305 310 315 320
 Gly Tyr Gln Tyr Ser Phe Pro Glu Leu Gly Ala Ala Leu Lys Glu Ile
 325 330 335
 Val Ala

<210> 938

<211> 321

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (220)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (221)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (238)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (263)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (267)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (268)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 938
 Cys Gln Glu Trp Val Pro Asp Arg Glu Ser Tyr Val Ser His Met Lys
 1 5 10 15
 Lys Ser His Gly Arg Thr Leu Lys Arg Tyr Pro Cys Arg Gln Xaa Glu
 20 25 30
 Gln Ser Phe His Thr Pro Asn Ser Leu Arg Lys His Ile Arg Asn Asn
 35 40 45
 His Asp Thr Val Lys Lys Phe Tyr Thr Cys Gly Tyr Cys Thr Glu Asp
 50 55 60
 Ser Pro Ser Phe Pro Arg Pro Ser Leu Leu Glu Ser His Ile Ser Leu
 65 70 75 80
 Met His Gly Ile Arg Asn Pro Asp Leu Ser Gln Thr Ser Lys Val Lys
 85 90 95
 Pro Pro Gly Gly His Ser Pro Gln Val Asn His Leu Lys Arg Pro Val
 100 105 110

894

Ser Gly Val Gly Asp Ala Pro Gly Thr Ser Asn Gly Ala Thr Val Ser
 115 120 125
 Ser Thr Lys Arg His Lys Ser Leu Phe Gln Cys Ala Lys Cys Ser Phe
 130 135 140
 Ala Thr Asp Ser Gly Leu Glu Phe Gln Ser His Ile Pro Gln His Gln
 145 150 155 160
 Val Gly Gln Xaa His Ser Pro Met Ser Pro Leu Trp Phe Val Leu His
 165 170 175
 Leu Cys Gln Leu Pro Gln Pro Pro Pro Leu His Cys Pro Gln Gly Glu
 180 185 190
 Arg Pro Gly Gly Gly Gly Gly Arg Gly Gly Gly Gly Thr Glu Met Ala
 195 200 205
 Val Glu Val Ala Glu Gln Arg Arg Ala Pro Gly Xaa Xaa Cys Pro Trp
 210 215 220
 Arg Leu Glu Arg Met Asp Trp Lys Asn Val Pro Val Ser Xaa Cys Gln
 225 230 235 240
 Leu Thr Gln Arg Arg Gly Asp Cys Trp Ala Arg Pro Leu Arg Thr Met
 245 250 255
 Val Ala Thr Met Ile Thr Xaa Asn His Arg Xaa Xaa Arg Thr Arg Thr
 260 265 270
 Ala Thr His Cys Pro Leu Arg Cys Asp Arg Arg Leu Cys Ser Val His
 275 280 285
 Gly Gln Gly Trp Cys Arg Ser Val Phe His Leu Pro Cys Gly Pro Trp
 290 295 300
 Lys Ile Lys Gly Ser Ala Pro Ser Val Ser Val Thr Gly Cys Thr Leu
 305 310 315 320
 Glu

<210> 939

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE
 <222> (4)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (44)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (71)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (81)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 939
 Ala Ala Ser Xaa Gly Glu Gln Arg Glu Arg Ala Arg Leu Gln Thr Pro
 1 5 10 15
 Thr Arg Pro His Ser Thr Ser Ala Arg Pro Arg Arg Arg Gln Val Gln
 20 25 30
 Leu Leu Gln Leu Cys Gly Cys Ala Ala Lys Gly Xaa Ala His Gly Leu
 35 40 45
 Asp Val Thr Ser Pro Thr Val Ser Trp Leu Ala Cys Pro Cys Ala Arg
 50 55 60
 Pro Ser Xaa Ser Arg Gln Xaa Leu Gly Thr Ser Glu Glu Glu Pro Gly
 65 70 75 80
 Xaa Asn Gly Lys Gly Gly Ile Gly Val His His Ser Leu Leu Leu Trp
 85 90 95
 Ser Ser Thr Gly Gly Thr Xaa Met Glu Val Ser Cys Leu Thr Ser Leu
 100 105 110

896

His Cys Thr Gly Pro Gly Met Pro Ile His Pro Leu Ala Glu Asp Thr
 115 120 125

His Gln Val Ile Cys Glu Glu Thr Leu Gly Ser His His Leu Lys Ala
 130 135 140

Arg Gly Ser Pro Ser His Arg
 145 150

<210> 940

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 940

Arg Cys Gly Trp Ser Ser Arg Ser Arg Arg Ser Arg Cys Ala Arg Arg
 1 5 10 15

Cys Pro Pro Ser Pro Cys Pro Thr Pro Arg His Val Pro Ser Ser Arg
 20 25 30

His Pro Glu Val Cys Gly Leu Arg Thr Asn Ser His Arg Cys Leu Phe
 35 40 45

Arg Pro Gln Leu Gln Ala Met Pro Ala Ala Gly Gly Val Leu Tyr Gln
 50 55 60

Pro Ser Gly Pro Ala Ser Phe Pro Ser Thr Phe Ser Pro Ala Gly Ser
 65 70 75 80

Val Glu Gly Ser Pro Met His Gly Val Tyr Met Ser Gln Pro Val Pro
 85 90 95

Ala Ala Gly Pro Tyr Pro Xaa
 100

<210> 941

<211> 136

<212> PRT

<213> Homo sapiens

<220>

897

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 941

Thr Ala Gly Arg Ser Asp Val Leu Pro Val Ala Gly Gly Glu Val Arg
 1 5 10 15

Ala Leu Gln Glu Gly Gly Cys Gly Asp Lys Met Lys Ile Phe Val Gly
 20 25 30

Asn Val Asp Gly Ala Asp Thr Thr Pro Glu Glu Leu Ala Ala Leu Phe
 35 40 45

Ala Pro Tyr Gly Thr Val Met Ser Cys Ala Val Met Lys Gln Phe Ala
 50 55 60

Phe Val His Met Arg Glu Asn Ala Gly Ala Leu Arg Ala Ile Glu Ala
 65 70 75 80

Leu His Gly His Glu Leu Arg Pro Gly Arg Ala Leu Val Val Glu Met
 85 90 95

Ser Arg Pro Arg Pro Leu Asn Thr Trp Lys Ile Phe Val Gly Asn Val
 100 105 110

Ser Ala Ala Cys Thr Ser Gln Glu Leu Arg Xaa Ser Ser Ser Ala Ala
 115 120 125

Asp Ala Ser Ser Ser Val Thr Trp
 130 135

<210> 942

<211> 61

<212> PRT

<213> Homo sapiens

<400> 942

Ile Met Lys Glu Ser Ser Ser Val Leu Ala Lys Cys Ser Ser Ile Ala
 1 5 10 15

Gly Tyr Ile Gln Trp Ser Ser Ile Asn Ser Tyr Leu Ser Gly Leu Asn
 20 25 30

Gln Asn Cys Val Ser Leu Asn Ser Tyr His Thr Glu Gly Ala Ser Gln
 35 40 45

Ile Thr Ile Phe Leu Ser Ala Val Phe Leu Gln Lys Ser
 50 55 60

898

<210> 943
 <211> 580
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (52)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (73)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 943
 Gly Ala Gln Ala Gln Ala Ser Ala Arg Pro Leu Gln Ala Phe Gly Ala
 1 5 10 15
 Arg Ala Arg Leu Gly Tyr Gly Pro Gly Arg Arg Arg Pro Pro Ser Ala
 20 25 30
 Arg Cys Leu Ser Gly Thr Ala Asn Arg Arg Glu Arg Arg Arg Val Gly
 35 40 45
 Leu Ser Ala Xaa Leu Gly Ala Gly Ala His Ala Arg Ala Pro Pro Gln
 50 55 60
 Ala Gly Ala Met Ala Ser Gly Ser Xaa Ala Glu Cys Leu Gln Gln Glu
 65 70 75 80
 Thr Thr Cys Pro Val Cys Leu Gln Tyr Phe Ala Glu Pro Met Met Leu
 85 90 95
 Asp Cys Gly His Asn Ile Cys Cys Ala Cys Leu Ala Arg Cys Trp Gly
 100 105 110
 Thr Ala Glu Thr Asn Val Ser Cys Pro Gln Cys Arg Glu Thr Phe Pro
 115 120 125
 Gln Arg His Met Arg Pro Asn Arg His Leu Ala Asn Val Thr Gln Leu
 130 135 140
 Val Lys Gln Leu Arg Thr Glu Arg Pro Ser Gly Pro Gly Gly Glu Met
 145 150 155 160
 Gly Val Cys Glu Lys His Arg Glu Pro Leu Lys Leu Tyr Cys Glu Glu
 165 170 175

900

Lys Trp Thr Ile Gly Val Cys Glu Asp Ser Val Cys Arg Lys Gly Gly
 450 455 460
 Val Thr Ser Ala Pro Gln Asn Gly Phe Trp Ala Val Ser Leu Trp Tyr
 465 470 475 480
 Gly Lys Glu Tyr Trp Ala Leu Thr Ser Pro Met Thr Ala Leu Pro Leu
 485 490 495
 Arg Thr Pro Leu Gln Arg Val Gly Ile Phe Leu Asp Tyr Asp Ala Gly
 500 505 510
 Glu Val Ser Phe Tyr Asn Val Thr Glu Arg Cys His Thr Phe Thr Phe
 515 520 525
 Ser His Ala Thr Phe Cys Gly Pro Val Arg Pro Tyr Phe Ser Leu Ser
 530 535 540
 Tyr Ser Gly Gly Lys Ser Ala Ala Pro Leu Ile Ile Cys Pro Met Ser
 545 550 555 560
 Gly Ile Asp Gly Phe Ser Gly His Val Gly Asn His Gly His Ser Met
 565 570 575
 Glu Thr Ser Pro
 580

<210> 944

<211> 437

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (166)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (317)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 944

901

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Thr | Gly | Ser | Gly | Glu | Lys | Glu | Cys | Gly | Val | Thr | Ala | Thr | Phe | 1 | 5 | 10 | 15 |
| Asp | Ala | Ser | Arg | Thr | Thr | Phe | Thr | Arg | Glu | Gly | Ser | Phe | Arg | Val | Thr | 20 | 25 | 30 | |
| Thr | Ala | Thr | Glu | Gln | Ala | Glu | Arg | Glu | Glu | Ile | Met | Lys | Gln | Met | Gln | 35 | 40 | 45 | |
| Asp | Ala | Lys | Lys | Ala | Glu | Thr | Asp | Lys | Ile | Val | Val | Gly | Ser | Ser | Val | 50 | 55 | 60 | |
| Ala | Pro | Gly | Xaa | Thr | Ala | Pro | Ser | Pro | Ser | Ser | Pro | Thr | Ser | Pro | Thr | 65 | 70 | 75 | 80 |
| Ser | Asp | Ala | Thr | Thr | Ser | Leu | Glu | Met | Asn | Asn | Pro | His | Ala | Ile | Pro | 85 | 90 | 95 | |
| Arg | Arg | His | Ala | Pro | Ile | Glu | Gln | Leu | Ala | Arg | Gln | Gly | Ser | Phe | Arg | 100 | 105 | 110 | |
| Gly | Phe | Pro | Ala | Leu | Ser | Gln | Lys | Met | Ser | Pro | Phe | Lys | Arg | Gln | Leu | 115 | 120 | 125 | |
| Ser | Leu | Arg | Ile | Asn | Glu | Leu | Pro | Ser | Thr | Met | Gln | Arg | Lys | Thr | Asp | 130 | 135 | 140 | |
| Phe | Pro | Ile | Lys | Asn | Ala | Val | Pro | Glu | Val | Glu | Gly | Glu | Ala | Glu | Ser | 145 | 150 | 155 | 160 |
| Ile | Ser | Ser | Leu | Cys | Xaa | Gln | Ile | Thr | Asn | Ala | Phe | Ser | Thr | Pro | Glu | 165 | 170 | 175 | |
| Asp | Pro | Phe | Ser | Ser | Ala | Pro | Met | Thr | Lys | Pro | Val | Thr | Val | Val | Ala | 180 | 185 | 190 | |
| Pro | Gln | Ser | Pro | Thr | Phe | Gln | Gly | Thr | Glu | Trp | Gly | Gln | Ser | Ser | Gly | 195 | 200 | 205 | |
| Ala | Ala | Ser | Pro | Gly | Leu | Phe | Gln | Ala | Gly | His | Arg | Arg | Thr | Pro | Ser | 210 | 215 | 220 | |
| Glu | Ala | Asp | Arg | Trp | Leu | Glu | Glu | Val | Ser | Lys | Ser | Val | Arg | Ala | Gln | 225 | 230 | 235 | 240 |
| Gln | Pro | Gln | Ala | Ser | Ala | Ala | Pro | Leu | Gln | Pro | Val | Leu | Gln | Pro | Pro | 245 | 250 | 255 | |
| Pro | Pro | Thr | Ala | Ile | Ser | Gln | Pro | Ala | Ser | Pro | Phe | Gln | Gly | Asn | Ala | 260 | 265 | 270 | |

902

Phe Leu Thr Ser Gln Pro Val Pro Val Gly Val Val Pro Ala Leu Gln
275 280 285

Pro Ala Phe Val Pro Ala Gln Ser Tyr Pro Val Ala Asn Gly Met Pro
290 295 300

Tyr Pro Ala Pro Asn Val Pro Val Val Gly Ile Thr Xaa Ser Gln Met
305 310 315 320

Val Ala Asn Val Phe Gly Thr Ala Gly His Pro Gln Ala Ala His Pro
325 330 335

His Gln Ser Pro Ser Leu Val Arg Gln Gln Thr Phe Pro His Tyr Glu
340 345 350

Ala Ser Ser Ala Thr Thr Ser Pro Phe Phe Lys Pro Pro Ala Gln His
355 360 365

Leu Asn Gly Ser Ala Ala Phe Asn Gly Val Asp Asp Gly Arg Leu Ala
370 375 380

Ser Ala Asp Arg His Thr Glu Val Pro Thr Gly Thr Cys Pro Val Asp
385 390 395 400

Pro Phe Glu Ala Gln Trp Ala Ala Leu Glu Asn Lys Ser Lys Gln Arg
405 410 415

Thr Asn Pro Ser Pro Thr Asn Pro Phe Ser Ser Asp Leu Gln Lys Thr
420 425 430

Phe Glu Ile Glu Leu
435

<210> 945

<211> 160

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

$\langle 222 \rangle$ (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 945

His Gly Ser Met Arg Arg Leu Leu Ile Pro Leu Ala Leu Trp Leu Gly
1 5 10 15

Ala Val Gly Val Gly Val Ala Glu Leu Thr Glu Ala Gln Arg Arg Gly
20 25 30

903

Leu Gln Val Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp
 35 40 45
 Ala Phe Gln Glu Thr Ser Val Glu Ser Ala Val Asp Thr Pro Phe Pro
 50 55 60
 Ala Gly Ile Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys
 65 70 75 80
 Arg Lys Arg Asp Trp Lys Lys Pro Glu Cys Lys Val Arg Pro Asn Gly
 85 90 95
 Arg Lys Arg Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys
 100 105 110
 Val Leu Gly Arg Leu Val Xaa Cys Pro Ile Glu Thr Gln Val Leu Arg
 115 120 125
 Glu Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp Pro His Ser
 130 135 140
 Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser Lys Ala Leu Pro Arg Ser
 145 150 155 160

<210> 946

<211> 221

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (198)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 946

Gly Gly Asp Pro Pro Gly Asp Leu Ser Ser Leu Ser Ser Lys Leu Leu
 1 5 10 15
 Pro Gly Phe Thr Thr Leu Gly Phe Lys Asp Glu Arg Arg Asn Lys Val
 20 25 30
 Thr Phe Leu Ser Ser Ala Thr Thr Ala Leu Ser Met Gln Asn Asn Ser
 35 40 45
 Val Phe Gly Asp Leu Lys Ser Asp Glu Met Glu Leu Leu Tyr Ser Ala

904

| | | |
|---|-----|-------------|
| 50 | 55 | 60 |
| Tyr Gly Asp Glu Thr Gly Val Gln Cys Ala Leu Ser Leu Gln Glu Phe | | |
| 65 | 70 | 75 80 |
| Val Lys Asp Ala Gly Ser Tyr Ser Lys Lys Val Val Asp Asp Leu Leu | | |
| | 85 | 90 95 |
| Asp Gln Ile Thr Gly Gly Asp His Ser Arg Thr Leu Phe Gln Leu Lys | | |
| | 100 | 105 110 |
| Gln Arg Arg Asn Val Pro Met Lys Pro Pro Asp Glu Ala Lys Val Gly | | |
| | 115 | 120 125 |
| Asp Thr Leu Gly Asp Ser Ser Ser Ser Val Leu Glu Phe Met Ser Met | | |
| | 130 | 135 140 |
| Lys Ser Tyr Pro Asp Val Ser Val Asp Ile Ser Met Leu Ser Ser Leu | | |
| | 145 | 150 155 160 |
| Gly Lys Val Lys Lys Glu Leu Asp Pro Asp Asp Ser His Leu Asn Leu | | |
| | 165 | 170 175 |
| Asp Glu Thr Thr Lys Leu Leu Gln Asp Leu His Glu Ala Gln Ala Asp | | |
| | 180 | 185 190 |
| Ala Ala Ala Leu Gly Xaa Arg Pro Thr Ser Ala Pro Cys Pro Thr Pro | | |
| | 195 | 200 205 |
| Pro Arg Gly Thr Ser Thr Thr Trp Glu Ala Leu Leu Ala | | |
| | 210 | 215 220 |

<210> 947

<211> 316

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (293)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (312)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 947

Glu Gln Tyr Val Cys Ala Gln Arg Asp Glu Tyr Leu Glu Ser Phe Cys

905

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Lys Met Ala Thr Arg Lys Ile Ser Val Ile Thr Ile Phe Gly Pro Val | 20 | 25 | 30 |
| Asn Asn Ser Thr Met Lys Ile Asp His Phe Gln Leu Asp Asn Glu Lys | 35 | 40 | 45 |
| Pro Met Arg Val Val Asp Asp Glu Asp Leu Val Asp Gln Arg Leu Ile | 50 | 55 | 60 |
| Ser Glu Leu Arg Lys Glu Tyr Gly Met Thr Tyr Asn Asp Phe Phe Met | 65 | 70 | 75 |
| Val Leu Thr Asp Val Asp Leu Arg Val Lys Gln Tyr Tyr Glu Val Pro | 85 | 90 | 95 |
| Ile Thr Met Lys Ser Val Phe Asp Leu Ile Asp Thr Phe Gln Ser Arg | 100 | 105 | 110 |
| Ile Lys Asp Met Glu Lys Gln Lys Lys Glu Gly Ile Val Cys Lys Glu | 115 | 120 | 125 |
| Asp Lys Lys Gln Ser Leu Glu Asn Phe Leu Ser Arg Phe Arg Trp Arg | 130 | 135 | 140 |
| Arg Arg Leu Leu Val Ile Ser Ala Pro Asn Asp Glu Asp Trp Ala Tyr | 145 | 150 | 155 |
| Ser Gln Gln Leu Ser Ala Leu Ser Gly Gln Ala Cys Asn Phe Gly Leu | 165 | 170 | 175 |
| Arg His Ile Thr Ile Leu Lys Leu Leu Gly Val Gly Glu Glu Val Gly | 180 | 185 | 190 |
| Gly Val Leu Glu Leu Phe Pro Ile Asn Gly Ser Ser Val Val Glu Arg | 195 | 200 | 205 |
| Glu Asp Val Pro Ala His Leu Val Lys Asp Ile Arg Asn Tyr Phe Gln | 210 | 215 | 220 |
| Val Ser Pro Glu Tyr Phe Ser Met Leu Leu Val Gly Lys Asp Gly Asn | 225 | 230 | 235 |
| Val Lys Ser Trp Tyr Pro Ser Pro Met Trp Ser Met Val Ile Val Tyr | 245 | 250 | 255 |
| Asp Leu Ile Asp Ser Met Gln Leu Arg Arg Gln Glu Met Ala Ile Gln | 260 | 265 | 270 |
| Gln Ser Leu Gly Met Arg Cys Pro Glu Asp Glu Tyr Ala Gly Tyr Gly | | | |

906

275 280 285
 Tyr His Ser Tyr Xaa Gln Gly Tyr Gln Asp Gly Tyr Gln Asp Asp Tyr
 290 295 300
 Arg His His Glu Ser Tyr His Xaa Gly Tyr Pro Tyr
 305 310 315

<210> 948
 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 948
 Ser Thr His Ala Ser Ala His Ala Ser Gly Lys Gln Cys Gln Asp Ser
 1 5 10 15
 Lys Asp Ser Asn His Leu Pro Lys Met Ser Leu Ser Ala Phe Thr Leu
 20 25 30
 Phe Leu Ala Leu Ile Gly Gly Thr Ser Gly Gln Tyr Tyr Asp Tyr Asp
 35 40 45
 Phe Pro Leu Ser Ile Tyr Gly Gln Ser Ser Pro Asn Cys Ala Pro Glu
 50 55 60
 Cys Asn Cys Pro Glu Ser Tyr Pro Ser Ala Met Tyr Cys Asp Glu Leu
 65 70 75 80
 Lys Leu Lys Ser Val Pro Met Val Pro Pro Gly Ile Lys Tyr Leu Tyr
 85 90 95
 Leu Arg Asn Asn Gln Ile Asp His Ile Asp Glu Lys Ala Phe Glu Asn
 100 105 110
 Val Thr Asp Leu Gln Trp Leu Ile Leu Asp His Asn Leu Leu Glu Asn
 115 120 125
 Ser Lys Ile Lys Gly Arg Val Phe Ser Lys Leu Lys Gln Leu Lys Lys
 130 135 140
 Leu His Ile Asn His Asn Asn Leu Thr Glu Ser Val Gly Pro Leu Pro
 145 150 155 160
 Lys Ser

907

<210> 949
 <211> 185
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (114)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 949
 Leu Gly Phe Asn Tyr Tyr Tyr Lys Tyr Ser Asn Glu Gly Asp Ser His
 1 5 10 15
 Leu Gly Gly Gly Ser Arg Glu Gly Ser Phe Lys Glu Thr Ile Thr Leu
 20 25 30
 Lys Trp Cys Thr Pro Arg Thr Asn Asn Ile Glu Leu His Tyr Cys Thr
 35 40 45
 Gly Ala Tyr Arg Ile Ser Pro Val Asp Val Asn Ser Arg Pro Ser Ser
 50 55 60
 Cys Leu Thr Asn Phe Leu Leu Asn Gly Arg Ser Val Leu Leu Glu Gln
 65 70 75 80
 Pro Arg Lys Ser Gly Ser Lys Val Ile Ser His Met Leu Ser Ser His
 85 90 95
 Gly Gly Glu Ile Phe Leu His Val Leu Ser Ser Ser Arg Ser Ile Leu
 100 105 110
 Glu Xaa Pro Pro Ser Ile Ser Glu Gly Cys Gly Gly Arg Val Thr Asp
 115 120 125
 Tyr Arg Ile Thr Asp Phe Gly Glu Phe Met Arg Glu Asn Arg Leu Thr
 130 135 140
 Pro Phe Leu Asp Pro Arg Tyr Lys Ile Asp Gly Ser Leu Glu Val Pro
 145 150 155 160
 Leu Glu Arg Ala Lys Asp Gln Leu Glu Lys His Thr Arg Tyr Trp Pro
 165 170 175
 Met Asp His Phe Thr Asn His His Phe
 180 185

<210> 950
 <211> 169

908

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 950

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Arg | Pro | His | Arg | Ser | Cys | Asp | Met | Pro | Ala | Ser | Gly | Glu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Cys | Thr | Pro | Leu | Leu | Pro | Asn | Asp | Ser | Gly | His | Pro | Ser | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Gly | Thr | Arg | Arg | Ala | Gly | Asn | Gly | Ala | Leu | Gly | Gly | Pro | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | His | Arg | Lys | Leu | Gln | Thr | His | Pro | Ser | Leu | Ala | Ser | Gln | Gly | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Ser | Lys | Ser | Ser | Ser | Lys | Ser | Thr | Thr | Ser | Gln | Ile | Pro | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Gln | Glu | Asp | Cys | Cys | Val | His | Cys | Ile | Leu | Ser | Cys | Leu | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Glu | Phe | Leu | Thr | Leu | Cys | Asn | Ile | Val | Leu | Asp | Cys | Ala | Thr | Cys |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Cys | Ser | Ser | Glu | Asp | Ser | Cys | Leu | Cys | Cys | Cys | Cys | Cys | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Glu | Cys | Ala | Asp | Cys | Asp | Leu | Pro | Cys | Asp | Leu | Asp | Cys | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Asp | Ala | Cys | Cys | Glu | Ser | Ala | Asp | Cys | Leu | Glu | Ile | Cys | Met |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Cys | Cys | Gly | Leu | Cys | Phe | Ser | Ser |
| | | | | 165 | | | | |

<210> 951

<211> 288

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (234)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 951

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Asp | Glu | Thr | Gly | Arg | Val | Pro | Glu | Arg | Asp | Thr | Lys | Arg | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Val | Cys | Leu | Leu | Ser | Ala | Met | Pro | Leu | Pro | Val | Ala | Leu | Gln | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Leu | Ala | Lys | Arg | Gly | Ile | Leu | Lys | His | Leu | Glu | Pro | Glu | Pro | Glu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Glu | Glu | Ile | Ile | Ala | Glu | Asp | Tyr | Asp | Asp | Asp | Pro | Val | Asp | Tyr | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Thr | Arg | Leu | Glu | Gly | Leu | Pro | Pro | Ser | Trp | Tyr | Lys | Val | Phe | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Ser | Cys | Gly | Leu | Pro | Tyr | Tyr | Trp | Asn | Ala | Asp | Thr | Asp | Leu | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Trp | Leu | Ser | Pro | His | Asp | Pro | Asn | Ser | Val | Val | Thr | Lys | Ser | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Lys | Leu | Arg | Ser | Ser | Asn | Ala | Asp | Ala | Glu | Glu | Lys | Leu | Asp | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | His | Asp | Lys | Ser | Asp | Arg | Gly | His | Asp | Lys | Ser | Asp | Arg | Ser | His |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Lys | Leu | Asp | Arg | Gly | His | Asp | Lys | Ser | Asp | Arg | Gly | His | Asp | Lys |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Xaa | Asp | Arg | Asp | Arg | Glu | Arg | Gly | Tyr | Asp | Lys | Val | Asp | Arg | Glu | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Arg | Asp | Arg | Glu | Arg | Asp | Arg | Asp | Arg | Gly | Tyr | Asp | Lys | Ala | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Glu | Glu | Gly | Lys | Glu | Arg | Arg | His | His | Arg | Arg | Glu | Glu | Leu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Tyr | Pro | Lys | Ser | Lys | Lys | Ala | Val | Ser | Arg | Lys | Asp | Glu | Glu | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |

910

Asp Pro Met Asp Pro Ser Ser Tyr Ser Xaa Arg Pro Arg Gly Thr Trp
 225 230 235 240
 Ser Thr Gly Leu Pro Lys Arg Asn Glu Ala Lys Thr Gly Ala Asp Thr
 245 250 255
 Thr Ala Ala Gly Pro Leu Phe Gln Gln Arg Pro Tyr Pro Ser Pro Gly
 260 265 270
 Ala Val Leu Arg Ala Asn Ala Glu Ala Ser Arg Thr Lys Gln Gln Asp
 275 280 285

<210> 952

<211> 323

<212> PRT

<213> Homo sapiens

<400> 952

Val Gly Gly Val Leu Pro Gly Trp Lys Leu Arg Pro Arg Ser Asp Gly
 1 5 10 15
 Gly Leu Ser Glu Asp Gly Pro Gly Arg Asp His Gly Gly Gly Ser Arg
 20 25 30
 Gly Gly Arg Gly Gly Ala Ala Gly Gly Arg Gly Gly Cys Gly Pro Gln
 35 40 45
 Gly Ala Val Gly Gly Gly Met Ala Arg Ala Ser Ser Gly Asn Gly Ser
 50 55 60
 Glu Glu Ala Trp Gly Ala Leu Arg Ala Pro Gln Gln Gln Leu Arg Glu
 65 70 75 80
 Leu Cys Pro Gly Val Asn Asn Gln Pro Tyr Leu Cys Glu Ser Gly His
 85 90 95
 Cys Cys Gly Glu Thr Gly Cys Cys Thr Tyr Tyr Tyr Glu Leu Trp Trp
 100 105 110
 Phe Trp Leu Leu Trp Thr Val Leu Ile Leu Phe Ser Cys Cys Cys Ala
 115 120 125
 Phe Arg His Arg Arg Ala Lys Leu Arg Leu Gln Gln Gln Gln Arg Gln
 130 135 140
 Arg Glu Ile Asn Leu Leu Ala Tyr His Gly Ala Cys His Gly Ala Gly

911

145 150 155 160
 Pro Phe Pro Thr Gly Ser Leu Leu Asp Leu Arg Phe Leu Ser Thr Phe
 165 170 175
 Lys Pro Pro Ala Tyr Glu Asp Val Val His Arg Pro Gly Thr Pro Pro
 180 185 190
 Pro Pro Tyr Thr Val Ala Pro Gly Arg Pro Leu Thr Ala Ser Ser Glu
 195 200 205
 Gln Thr Cys Cys Ser Ser Ser Ser Ser Cys Pro Ala His Phe Glu Gly
 210 215 220
 Thr Asn Val Glu Gly Val Ser Ser His Gln Ser Ala Pro Pro His Gln
 225 230 235 240
 Glu Gly Glu Pro Gly Ala Gly Val Thr Pro Ala Ser Thr Pro Pro Ser
 245 250 255
 Cys Arg Tyr Arg Arg Leu Thr Gly Asp Ser Gly Ile Glu Leu Cys Pro
 260 265 270
 Cys Pro Ala Ser Gly Glu Gly Glu Pro Val Lys Glu Val Arg Val Ser
 275 280 285
 Ala Thr Leu Pro Asp Leu Glu Asp Tyr Ser Pro Cys Ala Leu Pro Pro
 290 295 300
 Glu Ser Val Pro Gln Ile Phe Pro Met Gly Leu Ser Ser Ser Glu Gly
 305 310 315 320
 Asp Ile Pro

<210> 953

<211> 433

<212> PRT

<213> Homo sapiens

<400> 953

Ala Lys Met Ser Val Asn Val Asn Arg Ser Val Ser Asp Gln Phe Tyr
 1 5 10 15
 Arg Tyr Lys Met Pro Arg Leu Ile Ala Lys Val Glu Gly Lys Gly Asn
 20 25 30
 Gly Ile Lys Thr Val Ile Val Asn Met Val Asp Val Ala Lys Ala Leu
 35 40 45

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Pro | Pro | Thr | Tyr | Pro | Thr | Lys | Tyr | Phe | Gly | Cys | Glu | Leu | Gly | 50 | 55 | 60 | |
| Ala | Gln | Thr | Gln | Phe | Asp | Val | Lys | Asn | Asp | Arg | Tyr | Ile | Val | Asn | Gly | 65 | 70 | 75 | 80 |
| Ser | His | Glu | Ala | Asn | Lys | Leu | Gln | Asp | Met | Leu | Asp | Gly | Phe | Ile | Lys | 85 | 90 | 95 | |
| Lys | Phe | Val | Leu | Cys | Pro | Glu | Cys | Glu | Asn | Pro | Glu | Thr | Asp | Leu | His | 100 | 105 | 110 | |
| Val | Asn | Pro | Lys | Lys | Gln | Thr | Ile | Gly | Asn | Ser | Cys | Lys | Ala | Cys | Gly | 115 | 120 | 125 | |
| Tyr | Arg | Gly | Met | Leu | Asp | Thr | His | His | Lys | Leu | Cys | Thr | Phe | Ile | Leu | 130 | 135 | 140 | |
| Lys | Asn | Pro | Pro | Glu | Asn | Ser | Asp | Ser | Gly | Thr | Gly | Lys | Lys | Glu | Lys | 145 | 150 | 155 | 160 |
| Glu | Lys | Lys | Asn | Arg | Lys | Gly | Lys | Asp | Lys | Glu | Asn | Gly | Ser | Val | Ser | 165 | 170 | 175 | |
| Ser | Ser | Glu | Thr | Pro | Pro | Pro | Pro | Pro | Pro | Pro | Asn | Glu | Ile | Asn | Pro | 180 | 185 | 190 | |
| Pro | Pro | His | Thr | Met | Glu | Glu | Glu | Glu | Asp | Asp | Asp | Trp | Gly | Glu | Asp | 195 | 200 | 205 | |
| Thr | Thr | Glu | Glu | Ala | Gln | Arg | Arg | Arg | Met | Asp | Glu | Ile | Ser | Asp | His | 210 | 215 | 220 | |
| Ala | Lys | Val | Leu | Thr | Leu | Ser | Asp | Asp | Leu | Glu | Arg | Thr | Ile | Glu | Glu | 225 | 230 | 235 | 240 |
| Arg | Val | Asn | Ile | Leu | Phe | Asp | Phe | Val | Lys | Lys | Lys | Lys | Glu | Glu | Gly | 245 | 250 | 255 | |
| Val | Ile | Asp | Ser | Ser | Asp | Lys | Glu | Ile | Val | Ala | Glu | Ala | Glu | Arg | Leu | 260 | 265 | 270 | |
| Asp | Val | Lys | Ala | Met | Gly | Pro | Leu | Val | Leu | Thr | Glu | Val | Leu | Phe | Asn | 275 | 280 | 285 | |
| Glu | Lys | Ile | Arg | Glu | Gln | Ile | Lys | Lys | Tyr | Arg | Arg | His | Phe | Leu | Arg | 290 | 295 | 300 | |
| Phe | Cys | His | Asn | Asn | Lys | Lys | Ala | Gln | Arg | Tyr | Leu | Leu | His | Gly | Leu | 305 | 310 | 315 | 320 |

Glu Cys Val Val Ala Met His Gln Ala Gln Leu Ile Ser Lys Ile Pro
 325 330 335
 His Ile Leu Lys Glu Met Tyr Asp Ala Asp Leu Leu Glu Glu Glu Val
 340 345 350
 Ile Ile Ser Trp Ser Glu Lys Ala Ser Lys Lys Tyr Val Ser Lys Glu
 355 360 365
 Leu Ala Lys Glu Ile Arg Val Lys Ala Glu Pro Phe Ile Lys Trp Leu
 370 375 380
 Lys Glu Ala Glu Glu Glu Ser Ser Gly Gly Glu Glu Glu Asp Glu Asp
 385 390 395 400
 Glu Asn Ile Glu Val Val Tyr Ser Lys Ala Ala Ser Val Pro Lys Val
 405 410 415
 Glu Thr Val Lys Ser Asp Asn Lys Asp Asp Asp Ile Asp Ile Asp Ala
 420 425 430

Ile

<210> 954
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 954
 Gly Tyr Gln Ile Gly Met Ala Leu Ala Ser Gly Pro Ala Arg Arg Ala
 1 5 10 15
 Leu Ala Gly Ser Gly Gln Leu Gly Leu Gly Gly Phe Gly Ala Pro Arg
 20 25 30
 Arg Gly Ala Tyr Glu Trp Gly Val Arg Ser Thr Arg Lys Ser Glu Pro
 35 40 45
 Pro Pro Leu Asp Arg Val Tyr Glu Ile Pro Gly Leu Glu Pro Ile Thr
 50 55 60
 Phe Ala Gly Lys Met His Phe Val Pro Trp Leu Ala Arg Pro Ile Phe
 65 70 75 80
 Pro Pro Trp Asp Arg Gly Tyr Lys Asp Pro Arg Phe Tyr Arg Ser Pro
 85 90 95

Pro Leu His Glu His Pro Leu Tyr Lys Asp Gln Ala Cys Tyr Ile Phe
 100 105 110

His His Arg Cys Arg Leu Leu Glu Gly Val Lys Gln Ala Leu Trp Leu
 115 120 125

Thr Lys Thr Lys Leu Ile Glu Gly Leu Pro Glu Lys Val Leu Ser Leu
 130 135 140

Val Asp Asp Pro Arg Asn His Ile Glu Asn Gln Asp Glu Cys Val Leu
 145 150 155 160

Asn Val Ile Ser His Ala Arg Leu Trp Gln Thr Thr Glu Glu Ile Pro
 165 170 175

Lys Arg Glu Thr Tyr Cys Pro Val Ile Val Asp Asn Leu Ile Gln Leu
 180 185 190

Cys Lys Ser Gln Ile Leu Lys His Pro Ser Leu Ala Arg Arg Ile Cys
 195 200 205

Val Gln Asn Ser Thr Phe Ser Ala Thr Trp Asn Arg Glu Ser Leu Leu
 210 215 220

Leu Gln Val Arg Gly Ser Gly Gly Ala Arg Leu Ser Thr Lys Asp Pro
 225 230 235 240

Leu Pro Thr Ile Ala Ser Arg Glu Glu Ile Glu Ala Thr Lys Asn His
 245 250 255

Val Leu Glu Thr Phe Tyr Pro Ile Ser Pro Ile Ile Asp Leu His Glu
 260 265 270

Cys Asn Ile Tyr Asp Val Lys Asn Asp Thr Gly Phe Gln Glu Gly Tyr
 275 280 285

Pro Tyr Pro Tyr Pro His Thr Leu Tyr Leu Leu Asp Lys Ala Asn Leu
 290 295 300

Arg Pro His Arg Leu Gln Pro Asp Gln Leu Arg Ala Lys Met Ile Leu
 305 310 315 320

Phe Ala Phe Gly Ser Ala Leu Ala Gln Ala Arg Leu Leu Tyr Gly Asn
 325 330 335

Asp Ala Lys Val Leu Glu Gln Pro Val Val Val Gln Ser Val Gly Thr
 340 345 350

Asp Gly Arg Val Phe His Phe Leu Val Phe Gln Leu Asn Thr Thr Asp
 355 360 365

915

Leu Asp Ser Asn Glu Gly Val Lys Asn Leu Ala Trp Val Asp Ser Asp
 370 375 380

Gln Leu Leu Tyr Gln His Phe Trp Cys Leu Pro Val Ile Lys Lys Arg
 385 390 395 400

Val Val Val Glu Pro Val Gly Pro Val Gly Phe Lys Pro Glu Thr Phe
 405 410 415

Arg Lys Phe Leu Ala Leu Tyr Leu His Gly Ala Ala
 420 425

<210> 955

<211> 169

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (166)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 955

Asp Pro Arg Val Arg Pro Arg Val Arg Pro Arg Val Arg Glu Pro Gly
 1 5 10 15

Asp Arg Met Leu Val Leu Val Leu Gly Asp Leu His Ile Pro His Arg
 20 25 30

Cys Asn Ser Leu Pro Ala Lys Phe Lys Lys Leu Leu Val Pro Gly Lys
 35 40 45

Ile Gln His Ile Leu Cys Thr Gly Asn Leu Cys Thr Lys Glu Ser Tyr
 50 55 60

Asp Tyr Leu Lys Thr Leu Ala Gly Asp Val His Ile Val Arg Gly Asp
 65 70 75 80

Phe Asp Glu Asn Leu Asn Tyr Pro Glu Gln Lys Val Val Thr Val Gly

916

| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Gln | Phe | Lys | Ile | Gly | Leu | Ile | His | Gly | His | Gln | Val | Ile | Pro | Trp | Gly | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Asp | Met | Ala | Ser | Leu | Ala | Leu | Leu | Gln | Arg | Gln | Phe | Asp | Val | Asp | Ile | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Leu | Ile | Xaa | Gly | His | Thr | His | Lys | Phe | Glu | Ala | Xaa | Glu | His | Glu | Asn | | | | |
| | | 130 | | | | | 135 | | | | | 140 | | | | | | | |
| Lys | Phe | Tyr | Ile | Asn | Pro | Gly | Ser | Ala | Thr | Gly | Ala | Tyr | Asn | Ala | Leu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Glu | Thr | Asn | Ile | Ile | Xaa | Ser | Leu | Cys | | | | | | | | | | | |
| | | | | | 165 | | | | | | | | | | | | | | |

<210> 956

<211> 39

<212> PRT

<213> Homo sapiens

<400> 956

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Tyr | Cys | Gly | Leu | Gln | Val | Met | Leu | Phe | Leu | Leu | His | His | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Leu | Trp | Cys | Leu | Leu | Pro | Cys | Ala | Ser | Ser | Leu | Arg | Leu | Ile | Lys | Lys |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Val | Ser | Arg | Leu | Leu | Gln | Leu | | | | | | | | | |
| | | | 35 | | | | | | | | | | | | |

<210> 957

<211> 219

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

917

<400> 957

Gln Gly His Cys Gly Cys Xaa Leu Xaa Ser Leu Leu Ala Asn Gly His
 1 5 10 15

Asp Leu Ala Ala Ala Met Ala Val Asp Lys Ser Asn Pro Thr Ser Lys
 20 25 30

His Lys Ser Gly Ala Val Ala Ser Leu Leu Ser Lys Ala Glu Arg Ala
 35 40 45

Thr Glu Leu Ala Ala Glu Gly Gln Leu Thr Leu Gln Gln Phe Ala Gln
 50 55 60

Ser Thr Glu Met Leu Lys Arg Val Val Gln Glu His Leu Pro Leu Met
 65 70 75 80

Ser Glu Ala Gly Ala Gly Leu Pro Asp Met Glu Ala Val Ala Gly Ala
 85 90 95

Glu Ala Leu Asn Gly Gln Ser Asp Phe Pro Tyr Leu Gly Ala Phe Pro
 100 105 110

Ile Asn Pro Gly Leu Phe Ile Met Thr Pro Ala Gly Val Phe Leu Ala
 115 120 125

Glu Ser Ala Leu His Met Ala Gly Leu Ala Glu Tyr Pro Met Gln Gly
 130 135 140

Glu Leu Ala Ser Ala Ile Ser Ser Gly Lys Lys Lys Arg Lys Arg Cys
 145 150 155 160

Gly Met Cys Ala Pro Cys Arg Arg Arg Ile Asn Cys Glu Gln Cys Ser
 165 170 175

Ser Cys Arg Asn Arg Lys Thr Gly His Gln Ile Cys Lys Phe Arg Lys
 180 185 190

Cys Glu Glu Leu Lys Lys Lys Pro Ser Ala Ala Leu Glu Lys Val Met
 195 200 205

Leu Pro Thr Gly Ala Ala Phe Arg Trp Phe Gln
 210 215

<210> 958

<211> 259

<212> PRT

<213> Homo sapiens

<220>

918

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 958

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Leu Pro Gln Asn Ala Val Leu Glu Ala Asp Phe Ala Lys Arg Gly Tyr
 1             5             10             15

Lys Leu Pro Lys Xaa Arg Lys Thr Gly Thr Thr Ile Ala Gly Val Val
          20             25             30

Tyr Lys Asp Gly Ile Val Leu Gly Ala Asp Thr Arg Ala Thr Glu Gly
          35             40             45

Met Val Val Ala Asp Lys Asn Cys Ser Lys Ile His Phe Ile Ser Pro
          50             55             60

Asn Ile Tyr Cys Cys Gly Ala Gly Thr Xaa Ala Asp Thr Asp Met Thr
          65             70             75             80

Thr Gln Leu Ile Ser Ser Asn Leu Glu Leu His Ser Leu Ser Thr Gly
          85             90             95

Arg Leu Pro Arg Val Val Thr Ala Asn Arg Met Leu Lys Gln Met Leu
          100            105            110

Phe Arg Tyr Gln Gly Tyr Ile Gly Ala Ala Leu Val Leu Gly Gly Val
          115            120            125

Asp Val Thr Gly Pro His Leu Tyr Ser Ile Tyr Pro His Gly Ser Thr
          130            135            140

Asp Lys Leu Pro Tyr Val Thr Met Gly Ser Gly Ser Leu Ala Ala Met
          145            150            155            160

Ala Val Phe Glu Asp Lys Phe Arg Pro Asp Met Glu Glu Glu Glu Ala
          165            170            175

Lys Asn Leu Val Ser Glu Ala Ile Ala Ala Gly Ile Phe Asn Asp Leu
          180            185            190

Gly Ser Gly Ser Asn Ile Asp Leu Cys Val Ile Ser Lys Asn Lys Leu
          195            200            205

Asp Phe Leu Arg Pro Tyr Thr Val Pro Asn Lys Lys Gly Thr Arg Leu
          210            215            220

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919

Gly Arg Tyr Arg Cys Glu Lys Gly Thr Thr Ala Val Leu Thr Glu Lys
 225 230 235 240

Ile Thr Pro Leu Glu Ile Glu Val Leu Glu Glu Thr Val Gln Thr Met
 245 250 255

Asp Thr Ser

<210> 959

<211> 75

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 959

Phe Trp Ser Ala Ala Lys Phe Asp Phe Thr Ser His Thr Pro Phe Leu
 1 5 10 15

Pro Leu Glu Met Gln Phe Arg Gln Arg Pro Cys Gly Glu Ser Cys Asn
 20 25 30

Ile Lys Phe Xaa Phe Arg Arg Ser Xaa Pro Gln Thr Ser Glu Pro Leu
 35 40 45

Ala Val Leu Pro Xaa Asn Lys Asn Glu Leu Glu Lys Lys Val Ala Gln
 50 55 60

Leu Gln Arg Ser Lys Ser Ser Tyr Phe Pro Thr
 65 70 75

<210> 960

920

<211> 128

<212> PRT

<213> Homo sapiens

<400> 960

Gln Ser Arg Gly Leu Arg Leu Leu Gly Pro Gly Asp Gly Ala Gly Met
 1 5 10 15

Thr Pro Gly Val Val His Ala Ser Pro Pro Gln Ser Gln Arg Val Pro
 20 25 30

Arg Gln Ala Pro Cys Glu Trp Ala Ile Arg Asn Ile Gly Gln Lys Pro
 35 40 45

Lys Glu Pro Asn Cys His Asn Cys Gly Thr His Ile Gly Leu Arg Ser
 50 55 60

Lys Thr Leu Arg Gly Thr Pro Asn Tyr Leu Pro Ile Arg Gln Asp Thr
 65 70 75 80

His Pro Pro Ser Val Ile Phe Cys Leu Ala Gly Val Gly Val Pro Gly
 85 90 95

Gly Thr Cys Arg Pro Ala Pro Cys Val Pro Arg Phe Ala Ala Leu Pro
 100 105 110

Trp Ala Thr Asn His Pro Gly Pro Gly Cys Leu Ser Asp Leu Arg Ala
 115 120 125

<210> 961

<211> 564

<212> PRT

<213> Homo sapiens

<400> 961

Lys Met Lys Ser Val Lys Ile Ala Phe Ala Val Thr Leu Glu Thr Val
 1 5 10 15

Leu Ala Gly His Glu Asn Trp Val Asn Ala Val His Trp Gln Pro Val
 20 25 30

Phe Tyr Lys Asp Gly Val Leu Gln Gln Pro Val Arg Leu Leu Ser Ala
 35 40 45

Ser Met Asp Lys Thr Met Ile Leu Trp Ala Pro Asp Glu Glu Ser Gly
 50 55 60

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Trp | Leu | Glu | Gln | Val | Arg | Val | Gly | Glu | Val | Gly | Gly | Asn | Thr | Leu | 65 | 70 | 75 | 80 |
| Gly | Phe | Tyr | Asp | Cys | Gln | Phe | Asn | Glu | Asp | Gly | Ser | Met | Ile | Ile | Ala | 85 | 90 | 95 | |
| His | Ala | Phe | His | Gly | Ala | Leu | His | Leu | Trp | Lys | Gln | Asn | Thr | Val | Asn | 100 | 105 | 110 | |
| Pro | Arg | Glu | Trp | Thr | Pro | Glu | Ile | Val | Ile | Ser | Gly | His | Phe | Asp | Gly | 115 | 120 | 125 | |
| Val | Gln | Asp | Leu | Val | Trp | Asp | Pro | Glu | Gly | Glu | Phe | Ile | Ile | Thr | Val | 130 | 135 | 140 | |
| Gly | Thr | Asp | Gln | Thr | Thr | Arg | Leu | Phe | Ala | Pro | Trp | Lys | Arg | Lys | Asp | 145 | 150 | 155 | 160 |
| Gln | Ser | Gln | Val | Thr | Trp | His | Glu | Ile | Ala | Arg | Pro | Gln | Ile | His | Gly | 165 | 170 | 175 | |
| Tyr | Asp | Leu | Lys | Cys | Leu | Ala | Met | Ile | Asn | Arg | Phe | Gln | Phe | Val | Ser | 180 | 185 | 190 | |
| Gly | Ala | Asp | Glu | Lys | Val | Leu | Arg | Val | Phe | Ser | Ala | Pro | Arg | Asn | Phe | 195 | 200 | 205 | |
| Val | Glu | Asn | Phe | Cys | Ala | Ile | Thr | Gly | Gln | Ser | Leu | Asn | His | Val | Leu | 210 | 215 | 220 | |
| Cys | Asn | Gln | Asp | Ser | Asp | Leu | Pro | Glu | Gly | Ala | Thr | Val | Pro | Ala | Leu | 225 | 230 | 235 | 240 |
| Gly | Leu | Ser | Asn | Lys | Ala | Val | Phe | Gln | Gly | Asp | Ile | Ala | Ser | Gln | Pro | 245 | 250 | 255 | |
| Ser | Asp | Glu | Glu | Glu | Leu | Leu | Thr | Ser | Thr | Gly | Phe | Glu | Tyr | Gln | Gln | 260 | 265 | 270 | |
| Val | Ala | Phe | Gln | Pro | Ser | Ile | Leu | Thr | Glu | Pro | Pro | Thr | Glu | Asp | His | 275 | 280 | 285 | |
| Leu | Leu | Gln | Asn | Thr | Leu | Trp | Pro | Glu | Val | Gln | Lys | Leu | Tyr | Gly | His | 290 | 295 | 300 | |
| Gly | Tyr | Glu | Ile | Phe | Cys | Val | Thr | Cys | Asn | Ser | Ser | Lys | Thr | Leu | Leu | 305 | 310 | 315 | 320 |
| Ala | Ser | Ala | Cys | Lys | Ala | Ala | Lys | Lys | Glu | His | Ala | Ala | Ile | Ile | Leu | 325 | 330 | 335 | |

922

Trp Asn Thr Thr Ser Trp Lys Gln Val Gln Asn Leu Val Phe His Ser
 340 345 350
 Leu Thr Val Thr Gln Met Ala Phe Ser Pro Asn Glu Lys Phe Leu Leu
 355 360 365
 Ala Val Ser Arg Asp Arg Thr Trp Ser Leu Trp Lys Lys Gln Asp Thr
 370 375 380
 Ile Ser Pro Glu Phe Glu Pro Val Phe Ser Leu Phe Ala Phe Thr Asn
 385 390 395 400
 Lys Ile Thr Ser Val His Ser Arg Ile Ile Trp Ser Cys Asp Trp Ser
 405 410 415
 Pro Asp Ser Lys Tyr Phe Phe Thr Gly Ser Arg Asp Lys Lys Val Val
 420 425 430
 Val Trp Gly Glu Cys Asp Ser Thr Asp Asp Cys Ile Glu His Asn Ile
 435 440 445
 Gly Pro Cys Ser Ser Val Leu Asp Val Gly Gly Ala Val Thr Ala Val
 450 455 460
 Ser Val Cys Pro Val Leu His Pro Ser Gln Arg Tyr Val Val Ala Val
 465 470 475 480
 Gly Leu Glu Cys Gly Lys Ile Cys Leu Tyr Thr Trp Lys Lys Thr Asp
 485 490 495
 Gln Val Pro Glu Ile Asn Asp Trp Thr His Cys Val Glu Thr Ser Gln
 500 505 510
 Ser Gln Ser His Thr Leu Ala Ile Arg Lys Leu Cys Trp Lys Asn Cys
 515 520 525
 Ser Gly Lys Thr Glu Gln Lys Glu Ala Glu Gly Ala Glu Trp Leu His
 530 535 540
 Phe Ala Ser Cys Gly Glu Asp His Thr Val Lys Ile His Arg Val Asn
 545 550 555 560
 Lys Cys Ala Leu

<210> 962

<211> 43

<212> PRT

923

<213> Homo sapiens

<400> 962

Phe Lys Tyr Val Lys Cys Gly Ser Phe Thr Pro His His Ser Glu His
 1 5 10 15

Thr Gly Glu Met Cys Phe Phe Gly Lys Leu Lys Gly Ala Ser Ser Leu
 20 25 30

Ile Gln Arg Asn Ile Ser His Val Cys Ser Phe
 35 40

<210> 963

<211> 132

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 963

Glu Ser Arg Val Asp Pro Arg Val Arg Glu Arg Ser Ala Arg Thr Ala
 1 5 10 15

Gly Ala Thr Val Gly Pro Ala Ala Val Met Ser Val Leu Arg Pro Leu
 20 25 30

Asp Lys Leu Pro Gly Leu Asn Thr Ala Thr Ile Leu Leu Val Gly Thr
 35 40 45

Glu Asp Ala Leu Leu Gln Gln Leu Ala Asp Ser Met Leu Lys Glu Asp
 50 55 60

Cys Ala Ser Glu Leu Lys Val His Leu Ala Lys Ser Leu Pro Leu Pro
 65 70 75 80

Ser Ser Val Asn Arg Pro Arg Ile Asp Leu Ile Val Phe Val Val Asn
 85 90 95

Leu His Ser Lys Tyr Ser Leu Gln Asn Thr Glu Glu Ser Leu Arg His
 100 105 110

Val Asp Ala Ser Phe Phe Leu Gly Lys Val Cys Phe Leu Ala Thr Gly
 115 120 125

Gly Gly Xaa Leu
 130

924

<210> 964
 <211> 175
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (13)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 964
 His Glu Arg Ser Cys Cys Asp Ala Arg Ser Glu Ala Xaa Gln Gly Arg
 1 5 10 15
 Gly Arg Val Gly Ala Gly Ala Gly Ala Ala Trp Ser Ser Cys Gly Val
 20 25 30
 Ser Gly Pro Gly Arg Gly Met Gly Val Leu Ala Ala Ala Arg Cys
 35 40 45
 Leu Val Arg Gly Ala Asp Arg Met Ser Lys Trp Thr Ser Lys Arg Gly
 50 55 60
 Pro Arg Ser Phe Arg Gly Arg Xaa Gly Arg Gly Ala Lys Gly Ile Gly
 65 70 75 80
 Phe Leu Thr Ser Gly Trp Arg Phe Val Gln Ile Lys Glu Met Val Pro
 85 90 95
 Glu Phe Val Val Pro Asp Leu Thr Gly Phe Lys Leu Lys Pro Tyr Val
 100 105 110
 Ser Tyr Leu Ala Pro Glu Ser Glu Glu Thr Pro Leu Thr Ala Ala Gln
 115 120 125
 Leu Phe Ser Glu Ala Val Ala Pro Ala Ile Glu Lys Asp Phe Lys Asp
 130 135 140
 Gly Thr Phe Asp Pro Asp Asn Leu Glu Lys Tyr Gly Phe Glu Pro Thr
 145 150 155 160
 Gln Glu Gly Lys Leu Phe Gln Leu Tyr Pro Arg Asn Phe Leu Arg
 165 170 175

925

<210> 965

<211> 363

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (356)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 965

Leu Leu Arg Arg Leu Arg Thr Ala Val Pro Gly Ser Leu Glu Ala Gln
 1 5 10 15

Lys Arg Lys Pro Ser Pro Gly Pro Gly Ser Leu Asp Leu Val Ser Leu
 20 25 30

Gly Ser Gly Asn Ser Gly Ser Gln Arg Thr Val Leu Ile Met Asp Lys
 35 40 45

Gln Asn Ser Gln Met Asn Ala Ser His Pro Glu Thr Asn Leu Pro Val
 50 55 60

Gly Tyr Pro Pro Gln Tyr Pro Pro Thr Ala Phe Gln Gly Pro Pro Gly
 65 70 75 80

Tyr Ser Gly Tyr Pro Gly Pro Gln Val Ser Tyr Pro Pro Pro Pro Ala
 85 90 95

Gly His Ser Gly Pro Gly Pro Ala Gly Phe Pro Val Pro Asn Gln Pro
 100 105 110

Val Tyr Asn Gln Pro Val Tyr Asn Gln Pro Val Gly Ala Ala Gly Val
 115 120 125

Pro Trp Met Pro Ala Pro Gln Pro Pro Leu Asn Cys Pro Pro Gly Leu
 130 135 140

Glu Tyr Leu Ser Gln Ile Asp Gln Ile Leu Ile His Gln Gln Ile Glu
 145 150 155 160

Leu Leu Glu Val Leu Thr Gly Phe Glu Thr Asn Asn Lys Tyr Glu Ile
 165 170 175

Lys Asn Ser Phe Gly Gln Arg Val Tyr Phe Ala Ala Glu Asp Thr Asp
 180 185 190

Cys Cys Thr Arg Asn Cys Cys Gly Pro Ser Arg Pro Phe Thr Leu Arg

926

| | | |
|---|-----|---------|
| 195 | 200 | 205 |
| Ile Ile Asp Asn Met Gly Gln Glu Val Ile Thr Leu Glu Arg Pro Leu | | |
| 210 | 215 | 220 |
| Arg Cys Ser Ser Cys Cys Cys Pro Cys Cys Leu Gln Glu Ile Glu Ile | | |
| 225 | 230 | 235 240 |
| Gln Ala Pro Pro Gly Val Pro Ile Gly Tyr Val Ile Gln Thr Trp His | | |
| | 245 | 250 255 |
| Pro Cys Leu Pro Lys Phe Thr Ile Gln Asn Glu Lys Arg Glu Asp Val | | |
| | 260 | 265 270 |
| Leu Lys Ile Ser Gly Pro Cys Val Val Cys Ser Cys Cys Gly Asp Val | | |
| | 275 | 280 285 |
| Asp Phe Glu Ile Lys Ser Leu Asp Glu Gln Cys Val Val Gly Lys Ile | | |
| | 290 | 295 300 |
| Ser Lys His Trp Thr Gly Ile Leu Arg Glu Ala Phe Thr Asp Ala Asp | | |
| 305 | 310 | 315 320 |
| Asn Phe Gly Ile Gln Phe Pro Leu Asp Leu Asp Val Lys Met Lys Ala | | |
| | 325 | 330 335 |
| Val Met Ile Gly Ala Cys Phe Leu Ile Asp Phe Met Phe Phe Glu Ser | | |
| | 340 | 345 350 |
| Thr Gly Ser Xaa Glu Gln Lys Ser Gly Val Trp | | |
| | 355 | 360 |

<210> 966

<211> 131

<212> PRT

<213> Homo sapiens

<400> 966

| |
|---|
| Ala Glu Val His Thr Arg Lys Gln Gly Pro Glu Ala Glu Pro Ala Ala |
| 1 5 10 15 |
| Met Ser Gly Glu Pro Gly Gln Thr Ser Val Ala Pro Pro Pro Glu Glu |
| 20 25 30 |
| Val Glu Pro Gly Ser Gly Val Arg Ile Val Val Glu Tyr Cys Glu Pro |
| 35 40 45 |
| Cys Gly Phe Glu Ala Thr Tyr Leu Glu Leu Ala Ser Ala Val Lys Glu |
| 50 55 60 |

927

Gln Tyr Pro Gly Ile Glu Ile Glu Ser Arg Leu Gly Gly Thr Gly Ala
 65 70 75 80
 Phe Glu Ile Glu Ile Asn Gly Gln Leu Val Phe Ser Lys Leu Glu Asn
 85 90 95
 Gly Gly Phe Pro Tyr Glu Lys Asp Leu Ile Glu Ala Ile Arg Arg Ala
 100 105 110
 Ser Asn Gly Glu Thr Leu Glu Lys Ile Thr Asn Ser Arg Pro Pro Cys
 115 120 125
 Val Ile Leu
 130

<210> 967
 <211> 344
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (68)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (306)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 967
 Pro Thr Pro Ala Ser His Ser Pro Ser Pro Ser Leu Pro Ala Leu Pro
 1 5 10 15
 Pro Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser Arg Cys
 20 25 30
 Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Leu Pro Arg
 35 40 45
 Ala Glu Gly Ala Ala Val Ala Gly Gly Pro Gly Ser Ser Ala Gly Pro
 50 55 60
 Pro Pro Pro Xaa Ala Glu Ala Ala Glu Pro Glu Ala Arg Leu Ala Glu
 65 70 75 80
 Val Thr Glu Ser Ser Asn Gln Asp Ala Leu Ser Gly Ser Ser Asp Leu
 85 90 95

Leu Glu Leu Leu Leu Gln Glu Asp Ser Arg Ser Gly Thr Gly Ser Ala
 100 105 110
 Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser Gly Ser Gly
 115 120 125
 Ser His Glu Gly Gly Ser Thr Ser Ala Ser Ile Thr Arg Ser Ser Gln
 130 135 140
 Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser Glu Ala
 145 150 155 160
 Glu Ala Gly Ala Ala Arg Gly Gly Ala Glu Pro Gly Asp Gln Val Ile
 165 170 175
 Lys Tyr Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn Ala Asp
 180 185 190
 Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Met Thr Ser
 195 200 205
 Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys Gln Gln
 210 215 220
 Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val His Ser
 225 230 235 240
 Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met Ala Cys
 245 250 255
 Val Asp Cys Gly Ser Ser Thr Gln Asp Pro Gly His Pro Asp Asp Pro
 260 265 270
 Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu Glu Gly
 275 280 285
 Gly Gly Glu Gln Gly Ser Ser Gly Gly Gly Ser Gly Glu Gly Glu Gly
 290 295 300
 Cys Xaa Glu Ala Gln Gly Gly Ala Lys Ala Ser Ser Ser Gln Asp Leu
 305 310 315 320
 Ala Met Glu Glu Glu Glu Gly Arg Ser Ser Ser Ser Pro Ala Leu
 325 330 335
 Pro Thr Ala Gly Asn Cys Thr Ser
 340

929

<210> 968

<211> 67

<212> PRT

<213> Homo sapiens

<400> 968

Arg Cys Ser Ser Phe Phe Leu Ser Leu Leu Val Lys Ile Thr Asn Ile
 1 5 10 15

Trp Glu Gly Phe Lys Asp Ala Cys Tyr Gly Ala Asn Val Leu Ser Leu
 20 25 30

Leu Asn Ser Arg Ser Glu Leu Leu Thr Cys Ile Gln Asn Ile Asn Ala
 35 40 45

Gln Asn Leu Tyr Met Ser Pro Ile Arg Lys Ile His Trp His Ala Thr
 50 55 60

Gly Asp Ser
 65

<210> 969

<211> 325

<212> PRT

<213> Homo sapiens

<400> 969

Leu Asn Leu Arg Ser Pro His Ile Cys Phe Arg Ser Ser Lys Pro Ser
 1 5 10 15

Trp Ala Asp Gln Val Glu Glu Glu Gly Glu Asp Asp Lys Cys Val Thr
 20 25 30

Ser Glu Leu Leu Lys Gly Ile Pro Leu Ala Thr Gly Asp Thr Ser Pro
 35 40 45

Glu Pro Glu Leu Leu Pro Gly Ala Pro Leu Pro Pro Pro Lys Glu Val
 50 55 60

Ile Asn Gly Asn Ile Lys Thr Val Thr Glu Tyr Lys Ile Asp Glu Asp
 65 70 75 80

Gly Lys Lys Phe Lys Ile Val Arg Thr Phe Arg Ile Glu Thr Arg Lys
 85 90 95

Ala Ser Lys Ala Val Ala Arg Arg Lys Asn Trp Lys Lys Phe Gly Asn
 100 105 110

Ser Glu Phe Asp Pro Pro Gly Pro Asn Val Ala Thr Thr Thr Val Ser

930

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Asp Asp Val Ser Met Thr Phe Ile Thr Ser Lys Glu Asp Leu Asn Cys | | |
| 130 | 135 | 140 |
| Gln Glu Glu Glu Asp Pro Met Asn Lys Leu Lys Gly Gln Lys Ile Val | | |
| 145 | 150 | 155 |
| Ser Cys Arg Ile Cys Lys Gly Asp His Trp Thr Thr Arg Cys Pro Tyr | | |
| 165 | 170 | 175 |
| Lys Asp Thr Leu Gly Pro Met Gln Lys Glu Leu Ala Glu Gln Leu Gly | | |
| 180 | 185 | 190 |
| Leu Ser Thr Gly Glu Lys Glu Lys Leu Pro Gly Glu Leu Glu Pro Val | | |
| 195 | 200 | 205 |
| Gln Ala Thr Gln Asn Lys Thr Gly Lys Tyr Val Pro Pro Ser Leu Arg | | |
| 210 | 215 | 220 |
| Asp Gly Ala Ser Arg Arg Gly Glu Ser Met Gln Pro Asn Arg Arg Ala | | |
| 225 | 230 | 235 |
| Asp Asp Asn Ala Thr Ile Arg Val Thr Asn Leu Ser Glu Asp Thr Arg | | |
| 245 | 250 | 255 |
| Glu Thr Asp Leu Gln Glu Leu Phe Arg Pro Phe Gly Ser Ile Ser Arg | | |
| 260 | 265 | 270 |
| Ile Tyr Leu Ala Lys Asp Lys Thr Thr Gly Gln Ser Lys Gly Phe Ala | | |
| 275 | 280 | 285 |
| Phe Ile Ser Phe His Arg Arg Glu Asp Ala Ala Arg Ala Ile Ala Gly | | |
| 290 | 295 | 300 |
| Val Ser Gly Phe Gly Tyr Asp His Leu Ile Leu Asn Val Glu Trp Ala | | |
| 305 | 310 | 315 |
| Lys Pro Ser Thr Asn | | |
| 325 | | |

<210> 970

<211> 357

<212> PRT

<213> Homo sapiens

<400> 970

| |
|---|
| Val Arg Val Lys Met Ala Ala Ala Glu Ala Ala Asn Cys Ile Met Glu |
| 1 5 10 15 |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Cys | Gly | Gln | Ala | Glu | Ser | Ser | Glu | Lys | Pro | Asn | Ala | Glu | Asp | 20 | 25 | 30 | |
| Met | Thr | Ser | Lys | Asp | Tyr | Tyr | Phe | Asp | Ser | Tyr | Ala | His | Phe | Gly | Ile | 35 | 40 | 45 | |
| His | Glu | Glu | Met | Leu | Lys | Asp | Glu | Val | Arg | Thr | Leu | Thr | Tyr | Arg | Asn | 50 | 55 | 60 | |
| Ser | Met | Phe | His | Asn | Arg | His | Leu | Phe | Lys | Asp | Lys | Val | Val | Leu | Asp | 65 | 70 | 75 | 80 |
| Val | Gly | Ser | Gly | Thr | Gly | Ile | Leu | Cys | Met | Phe | Ala | Ala | Lys | Ala | Gly | 85 | 90 | 95 | |
| Ala | Arg | Lys | Val | Ile | Gly | Ile | Glu | Cys | Ser | Ser | Ile | Ser | Asp | Tyr | Ala | 100 | 105 | 110 | |
| Val | Lys | Ile | Val | Lys | Ala | Asn | Lys | Leu | Asp | His | Val | Val | Thr | Ile | Ile | 115 | 120 | 125 | |
| Lys | Gly | Lys | Val | Glu | Glu | Val | Glu | Leu | Pro | Val | Glu | Lys | Val | Asp | Ile | 130 | 135 | 140 | |
| Ile | Ile | Ser | Glu | Trp | Met | Gly | Tyr | Cys | Leu | Phe | Tyr | Glu | Ser | Met | Leu | 145 | 150 | 155 | 160 |
| Asn | Thr | Val | Leu | Tyr | Ala | Arg | Asp | Lys | Trp | Leu | Ala | Pro | Asp | Gly | Leu | 165 | 170 | 175 | |
| Ile | Phe | Pro | Asp | Arg | Ala | Thr | Leu | Tyr | Val | Thr | Ala | Ile | Glu | Asp | Arg | 180 | 185 | 190 | |
| Gln | Tyr | Lys | Asp | Tyr | Lys | Ile | His | Trp | Trp | Glu | Asn | Val | Tyr | Gly | Phe | 195 | 200 | 205 | |
| Asp | Met | Ser | Cys | Ile | Lys | Asp | Val | Ala | Ile | Lys | Glu | Pro | Leu | Val | Asp | 210 | 215 | 220 | |
| Val | Val | Asp | Pro | Lys | Gln | Leu | Val | Thr | Asn | Ala | Cys | Leu | Ile | Lys | Glu | 225 | 230 | 235 | 240 |
| Val | Asp | Ile | Tyr | Thr | Val | Lys | Val | Glu | Asp | Leu | Thr | Phe | Thr | Ser | Pro | 245 | 250 | 255 | |
| Phe | Cys | Leu | Gln | Val | Lys | Arg | Asn | Asp | Tyr | Val | His | Ala | Leu | Val | Ala | 260 | 265 | 270 | |
| Tyr | Phe | Asn | Ile | Glu | Phe | Thr | Arg | Cys | His | Lys | Arg | Thr | Gly | Phe | Ser | 275 | 280 | 285 | |

932

Thr Ser Pro Glu Ser Pro Tyr Thr His Trp Lys Gln Thr Val Phe Tyr
 290 295 300
 Met Glu Asp Tyr Leu Thr Val Lys Thr Gly Glu Glu Ile Phe Gly Thr
 305 310 315 320
 Ile Gly Met Arg Pro Asn Ala Lys Asn Asn Arg Asp Leu Asp Phe Thr
 325 330 335
 Ile Asp Leu Asp Phe Lys Gly Gln Leu Cys Glu Leu Ser Cys Ser Thr
 340 345 350
 Asp Tyr Arg Met Arg
 355

<210> 971

<211> 176

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (176)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 971

Gly Val Pro Arg Arg Ala Tyr Gln Ala Xaa Xaa Leu Arg Arg Val Asp
 1 5 10 15
 Asp Phe Lys Lys Ala Phe Ser Lys Glu Lys Met Glu Lys Thr Lys Val
 20 25 30
 Arg Thr Arg Glu Asn Leu Glu Lys Thr Arg Leu Lys Thr Lys Glu Asn
 35 40 45
 Leu Glu Lys Thr Arg His Thr Leu Glu Lys Arg Met Asn Lys Leu Gly
 50 55 60

933

Thr Arg Leu Val Pro Ala Glu Arg Arg Glu Lys Leu Lys Thr Ser Arg
 65 70 75 80
 Asp Lys Leu Arg Lys Ser Phe Thr Pro Asp His Val Val Tyr Ala Arg
 85 90 95
 Ser Lys Thr Ala Val Tyr Lys Val Pro Pro Phe Thr Phe His Val Lys
 100 105 110
 Lys Ile Arg Glu Gly Gln Val Glu Val Leu Lys Ala Thr Glu Met Val
 115 120 125
 Glu Val Gly Ala Asp Asp Asp Glu Gly Gly Ala Glu Arg Gly Glu Ala
 130 135 140
 Gly Asp Leu Arg Arg Gly Ser Ser Pro Asp Val His Ala Leu Leu Glu
 145 150 155 160
 Ile Thr Glu Glu Ser Asp Ala Val Leu Val Asp Lys Ser Asp Ser Xaa
 165 170 175

<210> 972
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 972
 Gly Lys Ala Arg Arg Arg Ala Ala Lys Leu Gln Ser Ser Gln Glu Pro
 1 5 10 15
 Glu Ala Pro Pro Pro Arg Asp Val Ala Leu Leu Gln Gly Arg Ala Asn
 20 25 30
 Asp Leu Val Lys Tyr Leu Leu Ala Lys Asp Gln Thr Lys Ile Pro Ile
 35 40 45
 Lys Arg Ser Asp Met Leu Lys Asp Ile Ile Lys Glu Tyr Thr Asp Val
 50 55 60
 Tyr Pro Glu Ile Ile Glu Arg Ala Gly Tyr Ser Leu Glu Lys Val Phe
 65 70 75 80
 Gly Ile Gln Leu Lys Glu Ile Asp Lys Asn Asp His Leu Tyr Ile Leu
 85 90 95
 Leu Ser Thr Leu Glu Pro Thr Asp Ala Gly Ile Leu Gly Thr Thr Lys

934

100 105 110
 Asp Ser Pro Lys Leu Gly Leu Leu Met Val Leu Leu Ser Ile Ile Phe
 115 120 125
 Met Asn Gly Asn Arg Ser Ser Glu Ala Val Ile Trp Glu Val Leu Arg
 130 135 140
 Lys Leu Gly Leu Arg Leu Gly Tyr Ile Ile His Ser Leu Gly Thr
 145 150 155

<210> 973

<211> 233

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 973

Arg Ala Xaa Lys Ala Ala Pro Arg Arg Ala Leu Ala Arg Leu Val Leu
 1 5 10 15

Ala Trp Cys Arg Trp Leu Val Ser Ala Thr Cys Val Gly Thr Ala Asp
 20 25 30

Arg Lys Met Ser Ser Gly Asn Ala Lys Ile Gly His Pro Ala Pro Asn
 35 40 45

Phe Lys Ala Thr Ala Val Met Pro Asp Gly Gln Phe Lys Asp Ile Ser
 50 55 60

Leu Ser Asp Tyr Lys Gly Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu
 65 70 75 80

Asp Phe Thr Phe Val Cys Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg
 85 90 95

Ala Glu Glu Phe Lys Lys Leu Asn Cys Gln Val Ile Gly Ala Ser Val
 100 105 110

Asp Ser His Phe Cys His Leu Ala Trp Val Asn Thr Pro Lys Lys Gln
 115 120 125

Gly Gly Leu Gly Pro Met Asn Ile Pro Leu Val Ser Asp Pro Lys Arg
 130 135 140

935

Thr Ile Ala Gln Asp Tyr Gly Val Leu Lys Ala Asp Glu Gly Ile Ser
 145 150 155 160

Phe Arg Gly Leu Phe Ile Ile Asp Asp Lys Gly Ile Leu Arg Gln Ile
 165 170 175

Thr Val Asn Asp Leu Pro Val Gly Arg Ser Val Asp Glu Thr Leu Arg
 180 185 190

Leu Val Gln Ala Phe Gln Phe Thr Asp Lys His Gly Glu Val Cys Pro
 195 200 205

Ala Gly Trp Lys Pro Gly Ser Asp Thr Ile Lys Pro Asp Val Gln Lys
 210 215 220

Ser Lys Glu Tyr Phe Ser Lys Gln Lys
 225 230

<210> 974

<211> 174

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 974

Ser Trp Asp Arg Arg Leu Met Gln Asp Asp Asn Arg Gly Leu Gly Gln
 1 5 10 15

Gly Leu Lys Asp Asn Lys Arg Thr Cys Asn Arg Phe Arg Leu Leu Leu
 20 25 30

Glu Arg Arg Thr Xaa Gly Ser Glu Val Gln Asp Ser His Ser Thr Ser
 35 40 45

Tyr Pro Ser Leu Leu Ser His Leu Thr Ser Met Tyr Leu Asn Ala Pro
 50 55 60

Ala Leu Ala Leu Pro Val Ala Arg Met Gln Leu Pro Gly Pro Gly Leu
 65 70 75 80

Arg Ser Phe His Pro Leu Ala Ser Ser Leu Pro Cys Asp Phe His Leu
 85 90 95

Leu Asn Leu Arg Thr Leu Gln Ala Glu Glu Asp Thr Leu Pro Ser Ala
 100 105 110

936

Glu Thr Ala Leu Ile Leu His Arg Lys Val Leu Thr Ala Ala Trp Arg
 115 120 125

Gln Glu Leu Gly Leu Gln Leu His His Lys Pro Arg Gln Gly Ser Pro
 130 135 140

Gly Gln Pro Phe Pro Trp Pro Gly Cys Gly Ile Pro Ser Ala Asn Leu
 145 150 155 160

Leu Asp Val Thr Val Pro Ser Gly Leu Pro Val Gln Gln His
 165 170

<210> 975

<211> 380

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 975

Arg Pro Glu Val Arg His Ser Arg Glu Ala Pro Glu Ser Arg Arg Trp
 1 5 10 15

Ala Val Trp Arg Ser Leu Glu Ser Leu Pro Arg His Gln Leu Leu Cys
 20 25 30

Leu Pro Val Gly Ala Pro Pro Ala Pro Ala Met Leu Ser Ala Leu Ala
 35 40 45

Arg Pro Ala Ser Ala Ala Leu Arg Arg Ser Phe Ser Thr Ser Ala Gln
 50 55 60

Asn Asn Ala Lys Val Ala Val Leu Gly Ala Ser Gly Gly Ile Gly Gln
 65 70 75 80

Pro Leu Ser Leu Leu Leu Lys Asn Ser Pro Leu Val Ser Arg Leu Thr
 85 90 95

Leu Tyr Asp Ile Ala His Thr Pro Gly Val Ala Ala Asp Leu Ser His
 100 105 110

Ile Glu Thr Lys Ala Ala Val Lys Gly Tyr Leu Gly Pro Glu Gln Leu
 115 120 125

Pro Asp Cys Leu Lys Xaa Cys Asp Val Val Val Ile Pro Ala Gly Val

937

| | | | | |
|---|--|-----|--|-----|
| 130 | | 135 | | 140 |
| Pro Arg Lys Pro Gly Met Thr Arg Asp Asp Leu Phe Asn Thr Asn Ala | | | | |
| 145 | | 150 | | 155 |
| | | | | 160 |
| Thr Ile Val Ala Thr Leu Thr Ala Ala Cys Ala Gln His Cys Pro Glu | | | | |
| | | 165 | | 170 |
| | | | | 175 |
| Ala Met Ile Cys Val Ile Ala Asn Pro Val Asn Ser Thr Ile Pro Ile | | | | |
| | | 180 | | 185 |
| | | | | 190 |
| Thr Ala Glu Val Phe Lys Lys His Gly Val Tyr Asn Pro Asn Lys Ile | | | | |
| | | 195 | | 200 |
| | | | | 205 |
| Phe Gly Val Thr Thr Leu Asp Ile Val Arg Ala Asn Thr Phe Val Ala | | | | |
| | | 210 | | 215 |
| | | | | 220 |
| Glu Leu Lys Gly Leu Asp Pro Ala Arg Val Asn Val Pro Val Ile Gly | | | | |
| | | 225 | | 230 |
| | | | | 235 |
| | | | | 240 |
| Gly His Ala Gly Lys Thr Ile Ile Pro Leu Ile Ser Gln Cys Thr Pro | | | | |
| | | 245 | | 250 |
| | | | | 255 |
| Lys Val Asp Phe Pro Gln Asp Gln Leu Thr Ala Leu Thr Gly Arg Ile | | | | |
| | | 260 | | 265 |
| | | | | 270 |
| Gln Glu Ala Gly Thr Glu Val Val Lys Ala Lys Ala Gly Ala Gly Ser | | | | |
| | | 275 | | 280 |
| | | | | 285 |
| Ala Thr Leu Ser Met Ala Tyr Ala Gly Ala Arg Phe Val Phe Ser Leu | | | | |
| | | 290 | | 295 |
| | | | | 300 |
| Val Asp Ala Met Asn Gly Lys Glu Gly Val Val Glu Cys Ser Phe Val | | | | |
| | | 305 | | 310 |
| | | | | 315 |
| | | | | 320 |
| Lys Ser Gln Glu Thr Glu Cys Thr Tyr Phe Ser Thr Pro Leu Leu Leu | | | | |
| | | 325 | | 330 |
| | | | | 335 |
| Gly Lys Lys Gly Ile Glu Lys Asn Leu Gly Ile Gly Lys Val Ser Ser | | | | |
| | | 340 | | 345 |
| | | | | 350 |
| Phe Glu Glu Lys Met Ile Ser Asp Ala Ile Pro Glu Leu Lys Ala Ser | | | | |
| | | 355 | | 360 |
| | | | | 365 |
| Ile Lys Lys Gly Glu Asp Phe Val Lys Thr Leu Lys | | | | |
| | | 370 | | 375 |
| | | | | 380 |

<210> 976

<211> 269

<213> Homo sapiens

<400> 976

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Leu | Ser | Gln | Ile | Thr | Ile | Ala | Thr | Pro | Pro | Ala | Val | Lys | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ile | Ser | Asn | Ile | Ser | Gly | Phe | Asn | Glu | Thr | Cys | Leu | Arg | Trp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ile | Lys | Thr | Ala | Asp | Met | Glu | Glu | Met | Tyr | Leu | Phe | His | Ile | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Gln | Arg | Trp | Tyr | Gln | Lys | Glu | Phe | Ala | Gln | Glu | Met | Thr | Phe | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Ser | Ser | Ser | Ser | Arg | Asp | Pro | Glu | Val | Cys | Leu | Asp | Leu | Arg | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Thr | Asn | Tyr | Asn | Val | Ser | Leu | Arg | Ala | Leu | Ser | Ser | Glu | Leu | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Val | Ile | Ser | Leu | Thr | Thr | Gln | Ile | Thr | Glu | Pro | Pro | Leu | Pro | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Glu | Phe | Phe | Thr | Val | His | Arg | Gly | Pro | Leu | Pro | Arg | Leu | Arg | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Lys | Ala | Lys | Glu | Lys | Asn | Gly | Pro | Ile | Ser | Ser | Tyr | Gln | Val | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Leu | Pro | Leu | Ala | Leu | Gln | Ser | Thr | Phe | Ser | Cys | Asp | Ser | Glu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ser | Ser | Phe | Phe | Ser | Asn | Ala | Ser | Asp | Ala | Asp | Gly | Tyr | Val | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Glu | Leu | Leu | Ala | Lys | Asp | Val | Pro | Asp | Asp | Ala | Met | Glu | Ile | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Gly | Asp | Arg | Leu | Tyr | Tyr | Gly | Glu | Tyr | Tyr | Asn | Ala | Pro | Leu | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Gly | Ser | Asp | Tyr | Cys | Ile | Ile | Leu | Arg | Ile | Thr | Ser | Glu | Trp | Asn |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Lys | Val | Arg | Arg | His | Ser | Cys | Ala | Val | Trp | Ala | Gln | Val | Lys | Asp | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Leu | Met | Leu | Leu | Gln | Met | Ala | Gly | Val | Gly | Leu | Gly | Ser | Leu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |

939

Val Val Ile Ile Leu Thr Phe Leu Ser Phe Ser Ala Val
 260 265

<210> 977

<211> 477

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (471)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (473)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 977

Leu Phe Ser Pro Gln Val Glu Leu Thr Lys Ala Met Val Met Glu Lys
 1 5 10 15

Pro Ser Pro Leu Leu Val Gly Arg Glu Phe Val Arg Gln Tyr Tyr Thr
 20 25 30

Leu Leu Asn Gln Ala Pro Asp Met Leu His Arg Phe Tyr Gly Lys Asn
 35 40 45

Ser Ser Tyr Val His Gly Gly Leu Asp Ser Asn Gly Lys Pro Ala Asp
 50 55 60

Ala Val Tyr Gly Gln Lys Glu Ile His Arg Lys Val Met Ser Gln Asn
 65 70 75 80

Phe Thr Asn Cys His Thr Lys Ile Arg His Val Asp Ala His Ala Thr
 85 90 95

Leu Asn Asp Gly Val Val Val Gln Val Met Gly Leu Leu Ser Asn Asn
 100 105 110

Asn Gln Ala Leu Arg Arg Phe Met Gln Thr Phe Val Leu Ala Pro Glu
 115 120 125

Gly Ser Val Ala Asn Lys Phe Tyr Val His Asn Asp Ile Phe Arg Tyr
 130 135 140

Gln Asp Glu Val Phe Gly Gly Phe Val Thr Glu Pro Gln Glu Glu Ser
 145 150 155 160

940

Glu Glu Glu Val Glu Glu Pro Glu Glu Arg Gln Gln Thr Pro Glu Val
 165 170 175
 Val Pro Asp Asp Ser Gly Thr Phe Tyr Asp Gln Ala Val Val Ser Asn
 180 185 190
 Asp Met Glu Glu His Leu Glu Glu Pro Val Ala Glu Pro Glu Pro Asp
 195 200 205
 Pro Glu Pro Glu Pro Glu Gln Glu Pro Val Ser Glu Ile Gln Glu Glu
 210 215 220
 Lys Pro Glu Pro Val Leu Glu Glu Thr Ala Pro Glu Asp Ala Gln Lys
 225 230 235 240
 Ser Ser Ser Pro Ala Pro Ala Asp Ile Ala Gln Thr Val Gln Glu Asp
 245 250 255
 Leu Arg Thr Phe Ser Trp Ala Ser Val Thr Ser Lys Asn Leu Pro Pro
 260 265 270
 Ser Gly Ala Val Pro Val Thr Gly Ile Pro Pro His Val Val Lys Val
 275 280 285
 Pro Ala Ser Gln Pro Arg Pro Glu Ser Lys Pro Glu Ser Gln Ile Pro
 290 295 300
 Pro Gln Arg Pro Gln Arg Asp Gln Arg Val Arg Glu Gln Arg Ile Asn
 305 310 315 320
 Ile Pro Pro Gln Arg Gly Pro Arg Pro Ile Arg Glu Ala Gly Glu Gln
 325 330 335
 Gly Asp Ile Glu Pro Arg Arg Met Val Arg His Pro Asp Ser His Gln
 340 345 350
 Leu Phe Ile Gly Asn Leu Pro His Glu Val Asp Lys Ser Glu Leu Lys
 355 360 365
 Asp Phe Phe Gln Ser Tyr Gly Asn Val Val Glu Leu Arg Ile Asn Ser
 370 375 380
 Gly Gly Lys Leu Pro Asn Phe Gly Phe Val Val Phe Asp Asp Ser Glu
 385 390 395 400
 Pro Val Gln Lys Val Leu Ser Asn Arg Pro Ile Met Phe Arg Gly Glu
 405 410 415
 Val Arg Leu Asn Val Glu Glu Lys Lys Thr Arg Ala Ala Arg Glu Gly
 420 425 430

941

Asp Arg Arg Asp Asn Arg Leu Arg Gly Pro Gly Gly Pro Arg Gly Gly
 435 440 445

Leu Gly Gly Gly Met Arg Gly Pro Pro Arg Gly Gly Met Val Gln Lys
 450 455 460

Pro Gly Phe Gly Val Gly Xaa Gly Xaa Ala Pro Arg Gln
 465 470 475

<210> 978

<211> 339

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (326)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (336)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (339)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 978

Pro Val Ala Ala Val Ser Gly Arg Ala Val Gly Gly Ser Arg Gly Gly
 1 5 10 15

Gly Arg Gly Gly Met Ala Ala Ala Ala Gly Ala Gly Ser Gly Pro
 20 25 30

Trp Ala Ala Gln Glu Lys Gln Phe Pro Pro Ala Leu Leu Ser Phe Phe
 35 40 45

Ile Tyr Asn Pro Arg Phe Gly Pro Arg Glu Gly Gln Glu Glu Asn Lys
 50 55 60

Ile Leu Phe Tyr His Pro Asn Glu Val Glu Lys Asn Glu Lys Ile Arg

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | 70 | | | | 75 | | | | 80 | | | |
| Asn | Val | Gly | Leu | Cys | Glu | Ala | Ile | Val | Gln | Phe | Thr | Arg | Thr | Phe | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Ser | Lys | Pro | Ala | Lys | Ser | Leu | His | Thr | Gln | Lys | Asn | Arg | Gln | Phe |
| | | | | 100 | | | | | 105 | | | | | 110 | |
| Phe | Asn | Glu | Pro | Glu | Glu | Asn | Phe | Trp | Met | Val | Met | Val | Val | Arg | Xaa |
| | | | | 115 | | | | | 120 | | | | | 125 | |
| Pro | Ile | Ile | Glu | Lys | Gln | Ser | Lys | Asp | Gly | Lys | Pro | Val | Ile | Glu | Tyr |
| | | | | 130 | | | | | 135 | | | | | 140 | |
| Gln | Glu | Glu | Glu | Leu | Leu | Asp | Lys | Val | Tyr | Ser | Ser | Val | Leu | Arg | Gln |
| | | | | 145 | | | | | 150 | | | | | 155 | 160 |
| Cys | Tyr | Ser | Met | Tyr | Lys | Leu | Phe | Asn | Gly | Thr | Phe | Leu | Lys | Ala | Met |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Asp | Gly | Gly | Val | Lys | Leu | Leu | Lys | Glu | Arg | Leu | Glu | Lys | Phe | Phe |
| | | | | 180 | | | | | 185 | | | | | 190 | |
| His | Arg | Tyr | Leu | Gln | Thr | Leu | His | Leu | Gln | Ser | Cys | Asp | Leu | Leu | Asp |
| | | | | 195 | | | | | 200 | | | | | 205 | |
| Ile | Phe | Gly | Gly | Ile | Ser | Phe | Phe | Pro | Leu | Asp | Lys | Met | Thr | Tyr | Leu |
| | | | | 210 | | | | | 215 | | | | | 220 | |
| Lys | Ile | Gln | Ser | Phe | Ile | Asn | Arg | Met | Glu | Glu | Ser | Leu | Asn | Ile | Val |
| | | | | 225 | | | | | 230 | | | | | 235 | 240 |
| Lys | Tyr | Thr | Ala | Phe | Leu | Tyr | Asn | Asp | Gln | Leu | Ile | Trp | Ser | Gly | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Gln | Asp | Asp | Met | Arg | Ile | Leu | Tyr | Lys | Tyr | Leu | Thr | Thr | Ser | Leu |
| | | | | 260 | | | | | 265 | | | | | 270 | |
| Phe | Pro | Arg | His | Ile | Glu | Pro | Glu | Leu | Ala | Gly | Arg | Asp | Ser | Pro | Ile |
| | | | | 275 | | | | | 280 | | | | | 285 | |
| Arg | Ala | Glu | Met | Pro | Gly | Asn | Leu | Gln | His | Tyr | Gly | Arg | Phe | Leu | Thr |
| | | | | 290 | | | | | 295 | | | | | 300 | |
| Gly | Pro | Leu | Asn | Leu | Asn | Asp | Pro | Asp | Ala | Lys | Cys | Arg | Phe | Pro | Lys |
| | | | | 305 | | | | | 310 | | | | | 315 | 320 |
| Ile | Phe | Val | Asn | Thr | Xaa | Asp | Thr | Tyr | Glu | Glu | Leu | His | Leu | Ile | Xaa |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Tyr | Lys | Xaa | | | | | | | | | | | | | |

943

<210> 979

<211> 283

<212> PRT

<213> Homo sapiens

<400> 979

```

His Arg Glu Arg Arg Val Gly Leu Arg Cys Ala Arg Arg Thr Ser Glu
  1              5              10              15

Ala Ala Gly Ser Gly Ala Gly Pro Pro Gly Pro Leu Gln Gly Arg Ser
      20              25              30

Gly Ser Ser Trp Ala Pro Arg Pro Gly Arg Arg Thr Glu Glu Arg Arg
      35              40              45

Lys Gly Ala Gly Gly Thr Arg Pro Arg Pro Ala Ala Ala Met Asn Ser
      50              55              60

Asn Val Glu Asn Leu Pro Pro His Ile Ile Arg Leu Val Tyr Lys Glu
      65              70              75              80

Val Thr Thr Leu Thr Ala Asp Pro Pro Asp Gly Ile Lys Val Phe Pro
      85              90              95

Asn Glu Glu Asp Leu Thr Asp Leu Gln Val Thr Ile Glu Gly Pro Glu
      100             105             110

Gly Thr Pro Tyr Ala Gly Gly Leu Phe Arg Met Lys Leu Leu Leu Gly
      115             120             125

Lys Asp Phe Pro Ala Ser Pro Pro Lys Gly Tyr Phe Leu Thr Lys Ile
      130             135             140

Phe His Pro Asn Val Gly Ala Asn Gly Glu Ile Cys Val Asn Val Leu
      145             150             155             160

Lys Arg Asp Trp Thr Ala Glu Leu Gly Ile Arg His Val Leu Leu Thr
      165             170             175

Ile Lys Cys Leu Leu Ile His Pro Asn Pro Glu Ser Ala Leu Asn Glu
      180             185             190

Glu Ala Gly Arg Leu Leu Leu Glu Asn Tyr Glu Glu Tyr Ala Ala Arg
      195             200             205

Ala Arg Leu Leu Thr Glu Ile His Gly Gly Ala Gly Gly Pro Ser Gly
      210             215             220

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944

Arg Ala Glu Ala Gly Arg Ala Leu Ala Ser Gly Thr Glu Ala Ser Ser
 225 230 235 240

Thr Asp Pro Gly Ala Pro Gly Gly Pro Gly Gly Ala Glu Gly Pro Met
 245 250 255

Ala Lys Lys His Ala Gly Glu Arg Asp Lys Lys Leu Ala Ala Lys Lys
 260 265 270

Lys Thr Asp Lys Lys Arg Ala Leu Arg Arg Leu
 275 280

<210> 980

<211> 353

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (333)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (346)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 980

Arg Lys Gln Cys Gln Asp Ser Lys Asp Ser Asn His Leu Pro Lys Met
 1 5 10 15

Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr Ser
 20 25 30

Gly Gln Tyr Tyr Asp Tyr Asp Phe Pro Leu Ser Ile Tyr Gly Gln Ser
 35 40 45

Ser Pro Asn Cys Ala Pro Glu Cys Asn Cys Pro Glu Ser Tyr Pro Ser
 50 55 60

Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val Pro
 65 70 75 80

Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His Ile
 85 90 95

Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile Leu
 100 105 110

945

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asp | His | Asn | Leu | Leu | Glu | Asn | Ser | Lys | Ile | Lys | Gly | Arg | Val | Phe | Ser | | |
| | | 115 | | | | | | 120 | | | | 125 | | | | | |
| Lys | Leu | Lys | Gln | Leu | Lys | Lys | Leu | His | Ile | Asn | His | Asn | Asn | Leu | Thr | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Glu | Ser | Val | Gly | Pro | Leu | Pro | Lys | Ser | Leu | Glu | Asp | Leu | Gln | Leu | Thr | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| His | Asn | Lys | Ile | Thr | Lys | Leu | Gly | Ser | Phe | Glu | Gly | Leu | Val | Asn | Leu | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Thr | Phe | Ile | His | Leu | Gln | His | Asn | Arg | Leu | Lys | Glu | Asp | Ala | Val | Ser | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ala | Ala | Phe | Lys | Gly | Leu | Lys | Ser | Leu | Glu | Tyr | Leu | Asp | Leu | Ser | Phe | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Asn | Gln | Ile | Ala | Arg | Leu | Pro | Ser | Gly | Leu | Pro | Val | Ser | Leu | Leu | Thr | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Leu | Tyr | Leu | Asp | Asn | Asn | Lys | Ile | Ser | Asn | Ile | Pro | Asp | Glu | Tyr | Phe | | |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 | | |
| Lys | Arg | Phe | Asn | Ala | Leu | Gln | Tyr | Leu | Arg | Leu | Ser | His | Asn | Glu | Leu | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Ala | Asp | Ser | Gly | Ile | Pro | Gly | Asn | Ser | Phe | Asn | Val | Ser | Ser | Leu | Val | | |
| | | | 260 | | | | 265 | | | | | | 270 | | | | |
| Glu | Leu | Asp | Leu | Ser | Tyr | Asn | Lys | Leu | Lys | Asn | Ile | Pro | Thr | Val | Asn | | |
| | 275 | | | | | 280 | | | | | 285 | | | | | | |
| Glu | Asn | Leu | Glu | Asn | Tyr | Tyr | Leu | Glu | Val | Asn | Gln | Leu | Glu | Lys | Phe | | |
| | 290 | | | | 295 | | | | | 300 | | | | | | | |
| Asp | Ile | Lys | Ser | Phe | Cys | Lys | Ile | Leu | Gly | Pro | Leu | Ser | Tyr | Ser | Lys | | |
| 305 | | | | 310 | | | | | 315 | | | | | | 320 | | |
| Ile | Lys | His | Leu | Arg | Leu | Asp | Gly | Asn | Arg | Ile | Ser | Xaa | Thr | Ser | Leu | | |
| | | | 325 | | | | | 330 | | | | | | 335 | | | |
| Pro | Pro | Asp | Met | Tyr | Glu | Cys | Leu | Arg | Xaa | Ala | Asn | Glu | Val | Thr | Leu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |

Asn

946

<210> 981
 <211> 343
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (343)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 981

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Thr | Lys | Asn | Met | Thr | Ala | Leu | Ser | Ser | Glu | Asn | Cys | Ser | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Tyr | Gln | Leu | Arg | Gln | Thr | Asn | Gln | Pro | Leu | Asp | Val | Asn | Tyr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Phe | Leu | Ile | Ile | Leu | Gly | Lys | Ile | Leu | Leu | Asn | Ile | Leu | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Met | Arg | Arg | Lys | Asn | Thr | Cys | Gln | Asn | Phe | Met | Glu | Tyr | Phe | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Ser | Leu | Ala | Phe | Val | Asp | Leu | Leu | Leu | Leu | Val | Asn | Ile | Ser | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Leu | Tyr | Phe | Arg | Asp | Phe | Val | Leu | Leu | Ser | Ile | Arg | Phe | Thr | Lys |
| | | | | 85 | | | | | 90 | | | | | | 95 |
| Tyr | His | Ile | Cys | Leu | Phe | Thr | Gln | Ile | Ile | Ser | Phe | Thr | Tyr | Gly | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | His | Tyr | Pro | Val | Phe | Leu | Thr | Ala | Cys | Ile | Asp | Tyr | Cys | Leu | Asn |
| | | 115 | | | | | 120 | | | | 125 | | | | |
| Phe | Ser | Lys | Thr | Thr | Lys | Leu | Ser | Phe | Lys | Cys | Gln | Lys | Leu | Phe | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Phe | Thr | Val | Ile | Leu | Ile | Trp | Ile | Ser | Val | Leu | Ala | Tyr | Val | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Asp | Pro | Ala | Ile | Tyr | Gln | Ser | Leu | Lys | Ala | Gln | Asn | Ala | Tyr | Ser |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Arg | His | Cys | Pro | Phe | Tyr | Val | Ser | Ile | Gln | Ser | Tyr | Trp | Leu | Ser | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Met | Val | Met | Ile | Leu | Phe | Val | Ala | Phe | Ile | Thr | Cys | Trp | Glu | Glu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Val | Thr | Thr | Leu | Val | Gln | Ala | Ile | Arg | Ile | Thr | Ser | Tyr | Met | Asn | Glu |

947

| 210 | 215 | 220 |
|---|-----|---------|
| Thr Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg | | |
| 225 | 230 | 235 240 |
| Ser Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr | | |
| | 245 | 250 255 |
| Trp Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val | | |
| | 260 | 265 270 |
| Gln Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val | | |
| | 275 | 280 285 |
| Asn Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu | | |
| | 290 | 295 300 |
| Asn Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys | | |
| 305 | 310 | 315 320 |
| Cys Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys | | |
| | 325 | 330 335 |
| Pro Ile Ser Ile Met Ile Xaa | | |
| | 340 | |

<210> 982

<211> 142

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 982

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Pro | Pro | Ser | Thr | Phe | Leu | His | Ser | Ala | Val | Ser | Thr | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Arg | Pro | Ser | Pro | Pro | Ser | Leu | Leu | Pro | Ala | Pro | Cys | Lys | Pro | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Gly | Leu | Ala | Thr | Val | Pro | Ala | Gly | Ser | Pro | Gly | Leu | Gly | Val |
| | | 35 | | | | | | 40 | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Ser | Leu | Gln | Ala | Arg | Ser | Pro | Glu | Thr | Ser | Glu | Gly | His | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Val | Ala | Arg | Pro | Pro | Val | Ala | Asn | Leu | Ser | Ala | Ala | Ser | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Pro | Ala | Gly | Pro | Trp | Phe | Arg | Trp | Pro | Pro | Arg | Cys | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Arg | His | Gly | Pro | Ser | Ala | Gly | Pro | His | Xaa | Phe | Pro | Xaa | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Xaa | Trp | His | Cys | Ser | Arg | Gln | Xaa | Xaa | Gly | His | Gln | Xaa | Xaa | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Gln | Xaa | Pro | Ala | Gln | Thr | Ala | Ala | Gly | Met | Gly | Ala |
| | 130 | | | | | 135 | | | | | 140 | | |

949

<210> 983
 <211> 193
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (135)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (139)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 983
 Val Asn Phe Lys Ala Phe Glu Met Gly Lys Asp Tyr Tyr Cys Ile Leu
 1 5 10 15

 Gly Ile Glu Lys Gly Ala Ser Asp Glu Asp Ile Lys Lys Ala Tyr Arg
 20 25 30

 Lys Gln Ala Leu Lys Phe His Pro Asp Lys Asn Lys Ser Pro Gln Ala
 35 40 45

 Glu Glu Lys Phe Lys Glu Val Ala Glu Ala Tyr Glu Val Leu Ser Asp
 50 55 60

 Pro Lys Lys Arg Glu Ile Tyr Xaa Gln Phe Gly Glu Glu Gly Leu Lys
 65 70 75 80

 Gly Gly Ala Gly Gly Thr Asp Gly Gln Gly Gly Thr Phe Arg Tyr Thr
 85 90 95

 Phe His Gly Asp Pro His Ala Thr Phe Ala Ala Phe Phe Gly Gly Ser
 100 105 110

 Asn Pro Phe Glu Ile Phe Phe Gly Arg Arg Met Gly Gly Gly Arg Asp
 115 120 125

 Ser Glu Glu Met Glu Ile Xaa Gly Asp Pro Xaa Ser Ala Phe Gly Phe
 130 135 140

 Ser Met Asn Gly Tyr Pro Arg Asp Arg Asn Ser Val Gly Pro Ser Arg
 145 150 155 160

950

Leu Lys Gln Asp Pro Pro Val Ile His Glu Leu Arg Val Ser Leu Glu
 165 170 175

Glu Ile Tyr Ser Gly Cys Thr Lys Arg Asp Glu Arg Phe Leu Glu Lys
 180 185 190

Gly

<210> 984

<211> 402

<212> PRT

<213> Homo sapiens

<400> 984

Lys Ser Tyr Glu Met Glu Leu Glu Glu Gly Lys Ala Gly Ser Gly Leu
 1 5 10 15

Arg Gln Tyr Tyr Leu Ser Lys Ile Glu Glu Leu Gln Leu Ile Val Asn
 20 25 30

Asp Lys Ser Gln Asn Leu Arg Arg Leu Gln Ala Gln Arg Asn Glu Leu
 35 40 45

Asn Ala Lys Val Arg Leu Leu Arg Glu Glu Leu Gln Leu Leu Gln Glu
 50 55 60

Gln Gly Ser Tyr Val Gly Glu Val Val Arg Ala Met Asp Lys Lys Lys
 65 70 75 80

Val Leu Val Lys Val His Pro Glu Gly Lys Phe Val Val Asp Val Asp
 85 90 95

Lys Asn Ile Asp Ile Asn Asp Val Thr Pro Asn Cys Arg Val Ala Leu
 100 105 110

Arg Asn Asp Ser Tyr Thr Leu His Lys Ile Leu Pro Asn Lys Val Asp
 115 120 125

Pro Leu Val Ser Leu Met Met Val Glu Lys Val Pro Asp Ser Thr Tyr
 130 135 140

Glu Met Ile Gly Gly Leu Asp Lys Gln Ile Lys Glu Ile Lys Glu Val
 145 150 155 160

Ile Glu Leu Pro Val Lys His Pro Glu Leu Phe Glu Ala Leu Gly Ile
 165 170 175

951

Ala Gln Pro Lys Gly Val Leu Leu Tyr Gly Pro Pro Gly Thr Gly Lys
 180 185 190
 Thr Leu Leu Ala Arg Ala Val Ala His His Thr Asp Cys Thr Phe Ile
 195 200 205
 Arg Val Ser Gly Ser Glu Leu Val Gln Lys Phe Ile Gly Glu Gly Ala
 210 215 220
 Arg Met Val Arg Glu Leu Phe Val Met Ala Arg Glu His Ala Pro Ser
 225 230 235 240
 Ile Ile Phe Met Asp Glu Ile Asp Ser Ile Gly Ser Ser Arg Leu Glu
 245 250 255
 Gly Gly Ser Gly Gly Asp Ser Glu Val Gln Arg Thr Met Leu Glu Leu
 260 265 270
 Leu Asn Gln Leu Asp Gly Phe Glu Ala Thr Lys Asn Ile Lys Val Ile
 275 280 285
 Met Ala Thr Asn Arg Ile Asp Ile Leu Asp Ser Ala Leu Leu Arg Pro
 290 295 300
 Gly Arg Ile Asp Arg Lys Ile Glu Phe Pro Pro Pro Asn Glu Glu Ala
 305 310 315 320
 Arg Leu Asp Ile Leu Lys Ile His Ser Arg Lys Met Asn Leu Thr Arg
 325 330 335
 Gly Ile Asn Leu Arg Lys Ile Ala Glu Leu Met Pro Gly Ala Ser Gly
 340 345 350
 Ala Glu Val Lys Gly Val Cys Thr Glu Ala Gly Met Tyr Ala Leu Arg
 355 360 365
 Glu Arg Arg Val His Val Thr Gln Glu Asp Phe Glu Met Ala Val Ala
 370 375 380
 Lys Val Met Gln Lys Asp Ser Glu Lys Asn Met Ser Ile Lys Lys Leu
 385 390 395 400
 Trp Lys

<210> 985

<211> 347

<212> PRT

<213> Homo sapiens

952

<400> 985

Arg Arg Arg Arg Trp His Pro Gly Pro Gly Gly Pro Arg Arg Thr Ala
 1 5 10 15

Gly Lys Gly Pro Arg Lys Val Ala Ser Ala Ser Ala Ala Ala Ser Thr
 20 25 30

Leu Ser Glu Pro Pro Arg Arg Thr Gln Glu Ser Arg Thr Arg Thr Arg
 35 40 45

Ala Leu Gly Leu Pro Thr Leu Pro Met Glu Lys Leu Ala Ala Ser Thr
 50 55 60

Glu Pro Gln Gly Pro Arg Pro Val Leu Gly Arg Glu Ser Val Gln Val
 65 70 75 80

Pro Asp Asp Gln Asp Phe Arg Ser Phe Arg Ser Glu Cys Glu Ala Glu
 85 90 95

Val Gly Trp Asn Leu Thr Tyr Ser Arg Ala Gly Val Ser Val Trp Val
 100 105 110

Gln Ala Val Glu Met Asp Arg Thr Leu His Lys Ile Lys Cys Arg Met
 115 120 125

Glu Cys Cys Asp Val Pro Ala Glu Thr Leu Tyr Asp Val Leu His Asp
 130 135 140

Ile Glu Tyr Arg Lys Lys Trp Asp Ser Asn Val Ile Glu Thr Phe Asp
 145 150 155 160

Ile Ala Arg Leu Thr Val Asn Ala Asp Val Gly Tyr Tyr Ser Trp Arg
 165 170 175

Cys Pro Lys Pro Leu Lys Asn Arg Asp Val Ile Thr Leu Arg Ser Trp
 180 185 190

Leu Pro Met Gly Ala Asp Tyr Ile Ile Met Asn Tyr Ser Val Lys His
 195 200 205

Pro Lys Tyr Pro Pro Arg Lys Asp Leu Val Arg Ala Val Ser Ile Gln
 210 215 220

Thr Gly Tyr Leu Ile Gln Ser Thr Gly Pro Lys Ser Cys Val Ile Thr
 225 230 235 240

Tyr Leu Ala Gln Val Asp Pro Lys Gly Ser Leu Pro Lys Trp Val Val
 245 250 255

Asn Lys Ser Ser Gln Phe Leu Ala Pro Lys Ala Met Lys Lys Met Tyr

954

<210> 987

<211> 172

<212> PRT

<213> Homo sapiens

<400> 987

Thr Pro Arg Gly Ala Val Lys Pro Ser Ala Asn Lys Tyr Pro Ile Phe
1 5 10 15

Phe Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe
20 25 30

Pro Tyr Lys Glu Tyr Lys Asp Lys Phe Gly Lys Ser Asn Lys Arg Lys
35 40 45

Gly Phe Asn Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Gly Val Lys
50 55 60

Phe Thr Gly Tyr Gln Ala Ile Gln Gln Gln Ser Ser Ser Glu Thr Glu
65 70 75 80

Gly Glu Gly Gly Asn Thr Ala Asp Ala Ser Ser Glu Glu Glu Gly Asp
85 90 95

Arg Val Glu Glu Asp Gly Lys Gly Lys Arg Lys Asn Glu Lys Ala Gly
100 105 110

Ser Lys Arg Lys Lys Ser Tyr Thr Ser Lys Lys Ser Ser Lys Gln Ser
115 120 125

Arg Lys Ser Pro Gly Asp Glu Asp Asp Lys Asp Cys Lys Glu Glu Glu
130 135 140

Asn Lys Ser Ser Ser Glu Gly Gly Asp Ala Gly Asn Asp Thr Arg Asn
145 150 155 160

Thr Thr Ser Asp Leu Gln Lys Thr Ser Glu Gly Thr
165 170

<210> 988

<211> 238

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (101)

955

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 988

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Gln | Asp | Pro | Val | Pro | Glu | Gln | Glu | Met | Ser | Pro | Ser | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Cys | Leu | Gly | Gln | Ala | Leu | Met | Gly | Gly | Pro | Ser | Phe | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Gly | Thr | Ala | Pro | Pro | Asn | Ala | Ser | Leu | Ser | Phe | Leu | Pro | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gln | Tyr | Thr | Ala | Gly | Pro | Phe | Leu | Val | Phe | Val | Gln | Gln | Glu | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Trp | Trp | Asp | Met | Pro | Ser | Ser | Ala | Thr | Gly | Pro | Leu | Thr | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ile | Ser | Val | Leu | Pro | Val | Ser | Ala | Gly | Thr | Asp | Ser | Lys | Gly | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Val | Trp | Xaa | Ile | Gly | Gly | Trp | Glu | Gln | Arg | Gly | Glu | Asn | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Ser | Phe | Cys | Leu | Gly | Ile | Pro | His | Thr | Thr | Trp | Val | Leu | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Pro | Val | Leu | Ser | Lys | Thr | Met | Asp | Leu | Ala | Ser | Pro | Thr | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Ser | Gln | His | Leu | Arg | Glu | Gly | Gly | Trp | Lys | Arg | Leu | Cys | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Glu | Leu | Gln | Ala | Gly | Ser | Ala | Ala | Leu | Lys | Pro | Ser | Ser | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Thr | Gln | Asp | Pro | Ala | Pro | Gly | Arg | Arg | Arg | Val | Gly | Ala | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Gly | Gln | Lys | Glu | Ala | Ser | Ala | Gly | Leu | Glu | Asp | Pro | Ser | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | His | Ser | Val | Ser | Ser | Ser | Trp | Glu | Asn | Leu | Cys | Gln | Ala | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |

Ala Val Ile Gly Pro His Glu Val Ser Glu Ala Pro Ser Trp

956

225

230

235

<210> 989

<211> 74

<212> PRT

<213> Homo sapiens

<400> 989

Ser Leu Ile Lys Ala Leu Tyr Ile Leu Tyr Gly Phe Arg His His His
 1 5 10 15

Thr Lys Lys Leu Thr Pro Ser Ile Pro Val Phe Val Gly Gln Ala Ser
 20 25 30

Phe Phe Ser Pro Cys Ser Val Ser His Thr Val Cys Leu Gln Lys Leu
 35 40 45

Leu Ile Gly Ala Lys Tyr Asn Cys Gln Tyr Asn Leu Lys Thr Thr Met
 50 55 60

Cys Pro Arg Arg Pro Thr Cys Leu Phe Pro
 65 70

<210> 990

<211> 295

<212> PRT

<213> Homo sapiens

<400> 990

Ala Pro Ala Arg Pro Gly Ser Leu Pro Ser Thr Arg Ser Ala Pro Leu
 1 5 10 15

Val Pro Ser Ser Arg Arg Arg Pro Ala Glu Ser Pro Leu Arg Ser Arg
 20 25 30

Arg Cys Arg Gly Asp Met Val Leu Cys Val Gln Gly Pro Arg Pro Leu
 35 40 45

Leu Ala Val Glu Arg Thr Gly Gln Arg Pro Leu Trp Ala Pro Ser Leu
 50 55 60

Glu Leu Pro Lys Pro Val Met Gln Pro Leu Pro Ala Gly Ala Phe Leu
 65 70 75 80

Glu Glu Val Ala Glu Gly Thr Pro Ala Gln Thr Glu Ser Glu Pro Lys
 85 90 95

957

Val Leu Asp Pro Glu Glu Asp Leu Leu Cys Ile Ala Lys Thr Phe Ser
 100 105 110
 Tyr Leu Arg Glu Ser Gly Trp Tyr Trp Gly Ser Ile Thr Ala Ser Glu
 115 120 125
 Ala Arg Gln His Leu Gln Lys Met Pro Glu Gly Thr Phe Leu Val Arg
 130 135 140
 Asp Ser Thr His Pro Ser Tyr Leu Phe Thr Leu Ser Val Lys Thr Thr
 145 150 155 160
 Arg Gly Pro Thr Asn Val Arg Ile Glu Tyr Ala Asp Ser Ser Phe Arg
 165 170 175
 Leu Asp Ser Asn Cys Leu Ser Arg Pro Arg Ile Leu Ala Phe Pro Asp
 180 185 190
 Val Val Ser Leu Val Gln His Tyr Val Ala Ser Cys Thr Ala Asp Thr
 195 200 205
 Arg Ser Asp Ser Pro Asp Pro Ala Pro Thr Pro Ala Leu Pro Met Pro
 210 215 220
 Lys Glu Asp Ala Pro Ser Asp Pro Ala Leu Pro Ala Pro Pro Pro Ala
 225 230 235 240
 Thr Ala Val His Leu Lys Leu Val Gln Pro Phe Val Arg Arg Ser Ser
 245 250 255
 Ala Arg Ser Leu Gln His Leu Cys Arg Leu Val Ile Asn Arg Leu Val
 260 265 270
 Ala Asp Val Asp Cys Leu Pro Leu Pro Arg Arg Met Ala Asp Tyr Leu
 275 280 285
 Arg Gln Tyr Pro Phe Gln Leu
 290 295

<210> 991

<211> 58

<212> PRT

<213> Homo sapiens

<400> 991

Leu His Lys Val Ser Ile Leu Leu Tyr Ser Ala Val Leu Val Ser Phe
 1 5 10 15

Ser Cys Ile Gly Phe His Cys Ile Tyr Ser Leu Phe Met Leu Asn Leu

Phe Cys Ala Asn Phe Val Ala Arg Met Arg
50 55

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

Ala His Ala Ser Pro Thr Arg Xaa Glu Ala Arg Val Val Val Val Arg
1 5 10 15

Cys Leu Pro Ala Cys Val Arg Asp Leu Pro Asp Ser Val Ala Ala Met
20 25 30

Ala Ser Asp Glu Gly Lys Leu Phe Val Gly Gly Leu Ser Phe Asp Thr
35 40 45

Asn Glu Gln Ser Leu Glu Gln Val Phe Ser Lys Tyr Gly Gln Ile Ser
50 55 60

Glu Val Val Val Val Lys Asp Arg Glu Thr Gln Arg Ser Arg Gly Phe
65 70 75 80

Gly Phe Val Thr Phe Glu Asn Ile Asp Asp Ala Lys Asp Ala Met Met
85 90 95

Ala Met Asn Gly Lys Ser Val Asp Gly Arg Gln Ile Arg Val Asp Gln
100 105 110

Ala Gly Lys Ser Ser Asp Asn Arg Ser Arg Gly Tyr Arg Gly Gly Ser
115 120 125

Ala Gly Gly Arg Gly Phe Phe Arg Gly Gly Arg Gly Arg Gly Arg Gly
130 135 140

Phe Ser Arg Gly Gly Gly Asp Arg Gly Tyr Gly Gly Asn Arg Phe Glu
145 150 155 160

959

Ser Arg Ser Gly Gly Tyr Gly Gly Ser Arg Asp Tyr Tyr Ser Ser Arg
 165 170 175

Ser Gln Ser Gly Gly Tyr Ser Asp Arg Ser Ser Gly Gly Ser Tyr Arg
 180 185 190

Asp Ser Tyr Asp Ser Tyr Ala Thr His Asn Glu
 195 200

<210> 993

<211> 252

<212> PRT

<213> Homo sapiens

<400> 993

Gly Gly Leu Ala Trp Arg Ala Leu Arg Thr Ser Gly Thr Leu Leu Arg
 1 5 10 15

Val Glu Arg Leu Leu Leu Glu Asp Tyr Cys Pro Glu Glu Lys Met Phe
 20 25 30

Gly Phe His Lys Pro Lys Met Tyr Arg Ser Ile Glu Gly Cys Cys Ile
 35 40 45

Cys Arg Ala Lys Ser Ser Ser Ser Arg Phe Thr Asp Ser Lys Arg Tyr
 50 55 60

Glu Lys Asp Phe Gln Ser Cys Phe Gly Leu His Glu Thr Arg Ser Gly
 65 70 75 80

Asp Ile Cys Asn Ala Cys Val Leu Leu Val Lys Arg Trp Lys Lys Leu
 85 90 95

Pro Ala Gly Ser Lys Lys Asn Trp Asn His Val Val Asp Ala Arg Ala
 100 105 110

Gly Pro Ser Leu Lys Thr Thr Leu Lys Pro Lys Lys Val Lys Thr Leu
 115 120 125

Ser Gly Asn Arg Ile Lys Ser Asn Gln Ile Ser Lys Leu Gln Lys Glu
 130 135 140

Phe Lys Arg His Asn Ser Asp Ala His Ser Thr Thr Ser Ser Ala Ser
 145 150 155 160

Pro Ala Gln Ser Pro Cys Tyr Ser Asn Gln Ser Asp Asp Gly Ser Asp
 165 170 175

Thr Glu Met Ala Ser Gly Ser Asn Arg Thr Pro Val Phe Ser Phe Leu

960

180 185 190
 Asp Leu Thr Tyr Trp Lys Arg Gln Lys Ile Cys Cys Gly Ile Ile Tyr
 195 200 205
 Lys Gly Arg Phe Gly Glu Val Leu Ile Asp Thr His Leu Phe Lys Pro
 210 215 220
 Cys Cys Ser Asn Lys Lys Ala Ala Ala Glu Lys Pro Glu Glu Gln Gly
 225 230 235 240
 Gln Ser Leu Cys Pro Ser Pro Leu Arg Ser Gly Asp
 245 250

<210> 994

<211> 170

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 994

Arg Thr Arg Gly Xaa Asp Thr Gln Pro Thr Val Cys Thr Asp Ala Pro
 1 5 10 15
 Ser Leu Leu Pro Leu Ser Arg Leu His Leu Arg Gly Ser Trp Asp Arg
 20 25 30
 Arg Ser Val Ala Asn Met Gln Leu Phe Val Arg Ala Gln Glu Leu His
 35 40 45
 Thr Phe Glu Val Thr Gly Gln Glu Thr Val Ala Gln Ile Lys Ala His
 50 55 60
 Val Ala Ser Leu Glu Gly Ile Ala Pro Glu Asp Gln Val Val Leu Leu
 65 70 75 80
 Ala Gly Ala Pro Leu Glu Asp Glu Ala Thr Leu Gly Gln Cys Gly Val
 85 90 95
 Glu Ala Leu Thr Thr Leu Glu Val Ala Gly Arg Met Leu Gly Gly Lys
 100 105 110
 Val His Gly Ser Leu Ala Arg Ala Gly Lys Val Arg Gly Gln Thr Pro
 115 120 125

961

Lys Val Ala Lys Gln Glu Lys Lys Lys Lys Lys Thr Gly Arg Ala Lys
 130 135 140

Arg Arg Met Gln Tyr Asn Arg Arg Phe Val Asn Val Val Pro Thr Phe
 145 150 155 160

Gly Lys Lys Lys Gly Pro Asn Ala Asn Ser
 165 170

<210> 995

<211> 156

<212> PRT

<213> Homo sapiens

<400> 995

Gly Ser Gly Thr His Pro Ala Arg Ala Ala Pro Ala Pro His Ala Arg
 1 5 10 15

Ala Ser Phe Ser Arg Pro Leu Ala Pro Arg Arg Ser His Leu Ser Ser
 20 25 30

Leu Ala His Ala Arg Pro Ala Arg Glu Pro Arg Arg Arg Leu Gly Pro
 35 40 45

Ala Glu Ala Pro Pro Arg His Val Phe Ala Ser Arg Arg Lys Leu Glu
 50 55 60

Thr Lys Ala Gly His Pro Pro Ala Val Lys Ala Gly Gly Met Arg Ile
 65 70 75 80

Val Gln Lys His Pro His Thr Gly Asp Thr Lys Glu Glu Lys Asp Lys
 85 90 95

Asp Asp Gln Glu Trp Glu Ser Pro Ser Pro Pro Lys Pro Thr Val Phe
 100 105 110

Ile Ser Gly Val Ile Ala Arg Gly Asp Lys Asp Phe Pro Pro Ala Ala
 115 120 125

Ala Gln Val Ala His Gln Lys Pro His Ala Ser Met Asp Lys His Pro
 130 135 140

Ser Pro Arg Thr Gln His Ile Gln Gln Pro Arg Lys
 145 150 155

<210> 996

<211> 217

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 996

Asn Ser Ala Glu Gln Glu Gly Ser Gln Trp Ser Leu Pro Val Leu His
1 5 10 15

Ser Val Pro Asp Pro Ala Cys Leu Thr Leu Xaa Arg Val Ser Lys Gly
20 25 30

Leu Ala Ala Val Arg Ser Ser Val Pro Arg Ala Gly Gly Val Ser Arg
35 40 45

Arg Leu Ala Ala Val Arg Ser Thr Val Leu Cys Arg Ala Val Gly Cys
50 55 60

Ile Leu Ala Glu Leu Leu Ala His Arg Pro Leu Leu Pro Gly Thr Ser
65 70 75 80

Glu Ile His Gln Ile Asp Leu Ile Val Gln Leu Leu Gly Thr Pro Ser
85 90 95

Glu Asn Ile Trp Pro Gly Phe Ser Lys Leu Pro Leu Val Gly Gln Tyr
100 105 110

Ser Leu Arg Lys Gln Pro Tyr Asn Asn Leu Lys His Lys Phe Pro Trp
115 120 125

Leu Ser Glu Ala Gly Leu Arg Cys Cys Thr Ser Cys Ser Cys Thr Thr
130 135 140

Leu Arg Lys Gly Arg Arg Pro Gly Thr Ala Trp Arg Ala Pro Ile Ser
145 150 155 160

Arg Arg Ser Pro Tyr Pro Val Ser Arg Ser Ser Cys Arg Pro Phe Pro
165 170 175

Thr Thr Ala Thr Ser Gly Pro Pro Gln Pro Pro Pro Arg Ala Arg Ala
180 185 190

Ser Ala Val Asn Pro Asp Gly Gly Pro Gly Thr Arg Leu Tyr Ser His
195 200 205

Thr Arg Ser Ser Asp Gln Trp Cys Leu
210 215

963

<210> 997

<211> 466

<212> PRT

<213> Homo sapiens

<400> 997

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Val Ser Pro Arg Ala Gly Gly Ala Gly Asn Asn Arg Gly Arg Ala His
  1              5              10              15

Arg Ala Ser Ser Cys Ser Leu Pro Ala Pro Pro Ala Thr Leu Asp Pro
      20              25              30

Arg Ile Pro Pro Ala Arg Leu Pro Ala Met Ala Asp Lys Glu Ala Ala
      35              40              45

Phe Asp Asp Ala Val Glu Glu Arg Val Ile Asn Glu Glu Tyr Lys Ile
      50              55              60

Trp Lys Lys Asn Thr Pro Phe Leu Tyr Asp Leu Val Met Thr His Ala
      65              70              75              80

Leu Glu Trp Pro Ser Leu Thr Ala Gln Trp Leu Pro Asp Val Thr Arg
      85              90              95

Pro Glu Gly Lys Asp Phe Ser Ile His Arg Leu Val Leu Gly Thr His
      100             105             110

Thr Ser Asp Glu Gln Asn His Leu Val Ile Ala Ser Val Gln Leu Pro
      115             120             125

Asn Asp Asp Ala Gln Phe Asp Ala Ser His Tyr Asp Ser Glu Lys Gly
      130             135             140

Glu Phe Gly Gly Phe Gly Ser Val Ser Gly Lys Ile Glu Ile Glu Ile
      145             150             155             160

Lys Ile Asn His Glu Gly Glu Val Asn Arg Ala Arg Tyr Met Pro Gln
      165             170             175

Asn Pro Cys Ile Ile Ala Thr Lys Thr Pro Ser Ser Asp Val Leu Val
      180             185             190

Phe Asp Tyr Thr Lys His Pro Ser Lys Pro Asp Pro Ser Gly Glu Cys
      195             200             205

Asn Pro Asp Leu Arg Leu Arg Gly His Gln Lys Glu Gly Tyr Gly Leu
      210             215             220

Ser Trp Asn Pro Asn Leu Ser Gly His Leu Leu Ser Ala Ser Asp Asp

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| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Thr | Ile | Cys | Leu | Trp | Asp | Ile | Ser | Ala | Val | Pro | Lys | Glu | Gly | Lys |
| 245 | | | | 250 | | | | 255 | | | | | | | |
| Val | Val | Asp | Ala | Lys | Thr | Ile | Phe | Thr | Gly | His | Thr | Ala | Val | Val | Glu |
| 260 | | | | 265 | | | | 270 | | | | | | | |
| Asp | Val | Ser | Trp | His | Leu | Leu | His | Glu | Ser | Leu | Phe | Gly | Ser | Val | Ala |
| 275 | | | | 280 | | | | 285 | | | | | | | |
| Asp | Asp | Gln | Lys | Leu | Met | Ile | Trp | Asp | Thr | Arg | Ser | Asn | Asn | Thr | Ser |
| 290 | | | | 295 | | | | 300 | | | | | | | |
| Lys | Pro | Ser | His | Ser | Val | Asp | Ala | His | Thr | Ala | Glu | Val | Asn | Cys | Leu |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Ser | Phe | Asn | Pro | Tyr | Ser | Glu | Phe | Ile | Leu | Ala | Thr | Gly | Ser | Ala | Asp |
| 325 | | | | 330 | | | | 335 | | | | | | | |
| Lys | Thr | Val | Ala | Leu | Trp | Asp | Leu | Arg | Asn | Leu | Lys | Leu | Lys | Leu | His |
| 340 | | | | 345 | | | | 350 | | | | | | | |
| Ser | Phe | Glu | Ser | His | Lys | Asp | Glu | Ile | Phe | Gln | Val | Gln | Trp | Ser | Pro |
| 355 | | | | 360 | | | | 365 | | | | | | | |
| His | Asn | Glu | Thr | Ile | Leu | Ala | Ser | Ser | Gly | Thr | Asp | Arg | Arg | Leu | Asn |
| 370 | | | | 375 | | | | 380 | | | | | | | |
| Val | Trp | Asp | Leu | Ser | Lys | Ile | Gly | Glu | Glu | Gln | Ser | Pro | Glu | Asp | Ala |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Glu | Asp | Gly | Pro | Pro | Glu | Leu | Leu | Phe | Ile | His | Gly | Gly | His | Thr | Ala |
| 405 | | | | 410 | | | | 415 | | | | | | | |
| Lys | Ile | Ser | Asp | Phe | Ser | Trp | Asn | Pro | Asn | Glu | Pro | Trp | Val | Ile | Cys |
| 420 | | | | 425 | | | | 430 | | | | | | | |
| Ser | Val | Ser | Glu | Asp | Asn | Ile | Met | Gln | Val | Trp | Gln | Met | Ala | Glu | Asn |
| 435 | | | | 440 | | | | 445 | | | | | | | |
| Ile | Tyr | Asn | Asp | Glu | Asp | Pro | Glu | Gly | Ser | Val | Asp | Pro | Glu | Gly | Gln |
| 450 | | | | 455 | | | | 460 | | | | | | | |
| Gly | Ser | | | | | | | | | | | | | | |
| 465 | | | | | | | | | | | | | | | |

<210> 998

<211> 165

965

<212> PRT

<213> Homo sapiens

<400> 998

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Thr Arg Pro Pro Thr Arg Arg Pro Thr Arg Pro Pro Lys Ala Lys Lys
  1              5              10              15

Glu Ala Pro Ala Pro Pro Lys Ala Glu Ala Lys Ala Lys Ala Leu Lys
      20              25              30

Ala Lys Lys Ala Val Leu Lys Gly Val His Ser His Lys Lys Lys Lys
      35              40              45

Ile Arg Thr Ser Pro Thr Phe Arg Arg Pro Lys Thr Leu Arg Leu Arg
      50              55              60

Arg Gln Pro Lys Tyr Pro Arg Lys Ser Ala Pro Arg Arg Asn Lys Leu
      65              70              75              80

Asp His Tyr Ala Ile Ile Lys Phe Pro Leu Thr Thr Glu Ser Ala Met
      85              90              95

Lys Lys Ile Glu Asp Asn Asn Thr Leu Val Phe Ile Val Asp Val Lys
      100             105             110

Ala Asn Lys His Gln Ile Lys Gln Ala Val Lys Lys Leu Tyr Asp Ile
      115             120             125

Asp Val Ala Lys Val Asn Thr Leu Ile Arg Pro Asp Gly Glu Lys Lys
      130             135             140

Ala Tyr Val Arg Leu Ala Pro Asp Tyr Asp Ala Leu Asp Val Ala Asn
      145             150             155             160

Lys Ile Gly Ile Ile
      165

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<210> 999

<211> 194

<212> PRT

<213> Homo sapiens

<400> 999

```

Pro Glu Asn Ser Thr Ser Ser Phe Leu Leu Trp Gly Cys Pro Pro Ser
  1              5              10              15

Val Val Cys Phe Thr Val Gly Ser Pro Ala Arg Arg Pro Gln Cys Phe
      20              25              30

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966

Leu Arg Ala Glu Met Ala Asn Ser Gly Leu Gln Leu Leu Gly Phe Ser
 35 40 45
 Met Ala Leu Leu Gly Trp Val Gly Leu Val Ala Cys Thr Ala Ile Pro
 50 55 60
 Gln Trp Gln Met Ser Ser Tyr Ala Gly Asp Asn Ile Ile Thr Ala Gln
 65 70 75 80
 Ala Met Tyr Lys Gly Leu Trp Met Asp Cys Val Thr Gln Ser Thr Gly
 85 90 95
 Met Met Ser Cys Lys Met Tyr Asp Ser Val Leu Ala Leu Ser Ala Ala
 100 105 110
 Leu Gln Ala Thr Arg Ala Leu Met Val Val Ser Leu Val Leu Gly Phe
 115 120 125
 Leu Ala Met Phe Val Ala Thr Met Gly Met Lys Cys Thr Arg Cys Gly
 130 135 140
 Gly Asp Asp Lys Val Lys Lys Ala Arg Ile Ala Met Gly Gly Gly Ile
 145 150 155 160
 Ile Phe Ile Val Ala Gly Leu Ala Ala Leu Val Ala Cys Ser Trp Tyr
 165 170 175
 Gly His Gln Ile Val Thr Asp Phe Tyr Asn Pro Leu Ile Pro Thr Asn
 180 185 190
 Ile Lys

<210> 1000

<211> 362

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1000

Arg Gln Gln Arg Thr Arg Lys Lys Lys Pro Ala Gly Ala Ala Leu Gly
 1 5 10 15
 Ala Leu Gly Pro Arg Ala Gln Leu Xaa Ala Ala Ala Gln Thr Asn Ser
 20 25 30

968

Ile Thr Ser Gln Leu Glu Ile Asn Phe Gly Asp Leu Gly Arg Pro Gly
305 310 315 320

Arg Gly Gly Arg Gly Gly Arg Gly Gly Arg Gly Arg Gly Gly Arg Pro
325 330 335

Asn Arg Gly Ser Arg Thr Asp Lys Ser Ser Ala Ser Ala Pro Asp Val
340 345 350

Asp Asp Pro Glu Ala Phe Pro Ala Leu Ala
355 360

<210> 1001

<211> 207

<212> PRT

<213> Homo sapiens

<400> 1001

Leu Met Ser Val Val Arg Gly Phe Ser Glu Ala Ala Ala Gln Tyr Asn
1 5 10 15

Pro Glu Pro Pro Pro Pro Arg Thr His Tyr Ser Asn Ile Glu Ala Asn
20 25 30

Glu Ser Glu Glu Val Arg Gln Phe Arg Arg Leu Phe Ala Gln Leu Ala
35 40 45

Gly Asp Asp Met Glu Val Ser Ala Thr Glu Leu Met Asn Ile Leu Asn
50 55 60

Lys Val Val Thr Arg His Pro Asp Leu Lys Thr Asp Gly Phe Gly Ile
65 70 75 80

Asp Thr Cys Arg Ser Met Val Ala Val Met Asp Ser Asp Thr Thr Gly
85 90 95

Lys Leu Gly Phe Glu Glu Phe Lys Tyr Leu Trp Asn Asn Ile Lys Arg
100 105 110

Trp Gln Ala Ile Tyr Lys Gln Phe Asp Thr Asp Arg Ser Gly Thr Ile
115 120 125

Cys Ser Ser Glu Leu Pro Gly Ala Phe Glu Ala Ala Gly Phe His Leu
130 135 140

Asn Glu His Leu Tyr Asn Met Ile Ile Arg Arg Tyr Ser Asp Glu Ser
145 150 155 160

969

Gly Asn Met Asp Phe Asp Asn Phe Ile Ser Cys Leu Val Arg Leu Asp
 165 170 175

Ala Met Phe Arg Ala Phe Lys Ser Leu Asp Lys Asp Gly Thr Gly Gln
 180 185 190

Ile Gln Val Asn Ile Gln Glu Trp Leu Gln Leu Thr Met Tyr Ser
 195 200 205

<210> 1002
<211> 21
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1002
Ile Phe Cys Asp Thr Arg Ser His Gln Val Ala Xaa Gly Trp Phe Arg
 1 5 10 15

Ile Pro Gly Leu Lys
 20

<210> 1003
<211> 109
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1003

970

Met Pro Gln Leu Gly Leu Ser Cys Ile Pro Val Glu Gly Pro Xaa Pro
 1 5 10 15

Cys Leu Xaa Glu Val Arg Leu Cys Cys Val Asn Gly Gln Ala Leu Pro
 20 25 30

Gln Pro Thr Pro Gly Lys Val His Leu Phe Ser Gly Leu Tyr Lys Val
 35 40 45

Ser Trp Gly Pro Val Ala Ser Leu Pro Val Arg Ser Asp Phe Ser Leu
 50 55 60

Ser Ser Ser Pro Val Gly Glu Thr Lys Pro Asp Trp Gly Ala Gln Gly
 65 70 75 80

Glu His Gly Lys Gly Arg Leu Pro Cys Leu Ser Leu Ala Val Arg Val
 85 90 95

Arg Val Thr His Thr Lys Xaa Glu Cys Gly Gln Gln Val
 100 105

<210> 1004

<211> 542

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (252)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (519)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1004

Lys Asp Pro Glu Glu Tyr Cys Cys Thr Pro Ala Ala Arg Gly Arg Gly
 1 5 10 15

Lys Ser Ala Ala Leu Gly Leu Ala Ile Ala Gly Ala Val Ala Phe Gly
 20 25 30

Tyr Ser Asn Ile Phe Val Thr Ser Pro Ser Pro Asp Asn Leu His Thr
 35 40 45

Leu Phe Glu Phe Val Phe Lys Gly Phe Asp Ala Leu Gln Tyr Gln Glu
 50 55 60

| | | | | | | | | | | | | | | | | |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His 65 | Leu | Asp | Tyr | Glu | Ile | Ile | Gln | Ser | Leu | Asn | Pro | Glu | Phe | Asn | Lys | 80 |
| Ala | Val | Ile | Arg | Val | Asn | Val | Phe | Arg | Glu | His | Arg | Gln | Thr | Ile | Gln | 85 |
| Tyr | Ile | His | Pro | Ala | Asp | Ala | Val | Lys | Leu | Gly | Gln | Ala | Glu | Leu | Val | 90 |
| Val | Ile | Asp | Glu | Ala | Ala | Ala | Ile | Pro | Leu | Pro | Leu | Val | Lys | Ser | Leu | 95 |
| Leu | Gly | Pro | Tyr | Leu | Val | Phe | Met | Ala | Ser | Thr | Ile | Asn | Gly | Tyr | Glu | 100 |
| Gly | Thr | Gly | Arg | Ser | Leu | Ser | Leu | Lys | Leu | Ile | Gln | Gln | Leu | Arg | Gln | 105 |
| Gln | Ser | Ala | Gln | Ser | Gln | Val | Ser | Thr | Thr | Ala | Glu | Asn | Lys | Thr | Thr | 110 |
| Thr | Thr | Ala | Arg | Leu | Ala | Ser | Ala | Arg | Thr | Leu | His | Glu | Val | Ser | Leu | 115 |
| Gln | Glu | Ser | Ile | Arg | Tyr | Ala | Pro | Gly | Asp | Ala | Val | Glu | Lys | Trp | Leu | 120 |
| Asn | Asp | Leu | Leu | Cys | Leu | Asp | Cys | Leu | Asn | Ile | Thr | Arg | Ile | Val | Ser | 125 |
| Gly | Cys | Pro | Leu | Pro | Glu | Ala | Cys | Glu | Leu | Tyr | Tyr | Val | Asn | Arg | Asp | 130 |
| Thr | Leu | Phe | Cys | Tyr | His | Lys | Ala | Ser | Glu | Val | Xaa | Leu | Gln | Arg | Leu | 135 |
| Met | Ala | Leu | Tyr | Val | Ala | Ser | His | Tyr | Lys | Asn | Ser | Pro | Asn | Asp | Leu | 140 |
| Gln | Met | Leu | Ser | Asp | Ala | Pro | Ala | His | His | Leu | Phe | Cys | Leu | Leu | Pro | 145 |
| Pro | Val | Pro | Pro | Thr | Gln | Asn | Ala | Leu | Pro | Glu | Val | Leu | Ala | Val | Ile | 150 |
| Gln | Val | Cys | Leu | Glu | Gly | Glu | Ile | Ser | Arg | Gln | Ser | Ile | Leu | Asn | Ser | 155 |
| Leu | Ser | Arg | Gly | Lys | Lys | Ala | Ser | Gly | Asp | Leu | Ile | Pro | Trp | Thr | Val | 160 |

972

Ser Glu Gln Phe Gln Asp Pro Asp Phe Gly Gly Leu Ser Gly Gly Arg
 340 345 350
 Val Val Arg Ile Ala Val His Pro Asp Tyr Gln Gly Met Gly Tyr Gly
 355 360 365
 Ser Arg Ala Leu Gln Leu Leu Gln Met Tyr Tyr Glu Gly Arg Phe Pro
 370 375 380
 Cys Leu Glu Glu Lys Val Leu Glu Thr Pro Gln Glu Ile His Thr Val
 385 390 395 400
 Ser Ser Glu Ala Val Ser Leu Leu Glu Glu Val Ile Thr Pro Arg Lys
 405 410 415
 Asp Leu Pro Pro Leu Leu Leu Lys Leu Asn Glu Arg Pro Ala Glu Arg
 420 425 430
 Leu Asp Tyr Leu Gly Val Ser Tyr Gly Leu Thr Pro Arg Leu Leu Lys
 435 440 445
 Phe Trp Lys Arg Ala Gly Phe Val Pro Val Tyr Leu Arg Gln Thr Pro
 450 455 460
 Asn Asp Leu Thr Gly Glu His Ser Cys Ile Met Leu Lys Thr Leu Thr
 465 470 475 480
 Asp Glu Asp Glu Ala Asp Gln Gly Gly Trp Leu Ala Ala Phe Trp Lys
 485 490 495
 Asp Phe Arg Arg Arg Phe Leu Ala Leu Leu Ser Tyr Gln Phe Ser Thr
 500 505 510
 Phe Ser Pro Ser Leu Ala Xaa Asn Ile Ile Gln Asn Arg Asn Met Gly
 515 520 525
 Lys Pro Ala Gln Pro Ala Leu Ser Arg Glu Glu Leu Glu Ala
 530 535 540

<210> 1005

<211> 202

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

973

<400> 1005

Asp Ala Ala Asp Thr Ile Glu Thr Asp Thr Ala Thr Ala Asp Thr Thr
 1 5 10 15

Val Ala Asn Asn Val Pro Pro Ala Ala Thr Ser Leu Ile Asp Leu Trp
 20 25 30

Pro Gly Asn Gly Glu Gly Ala Ser Thr Leu Gln Gly Glu Pro Arg Ala
 35 40 45

Pro Thr Pro Pro Ser Gly Thr Glu Val Thr Leu Ala Glu Val Pro Leu
 50 55 60

Leu Asp Glu Val Ala Pro Glu Pro Leu Leu Pro Ala Xaa Glu Gly Cys
 65 70 75 80

Ala Thr Leu Leu Asn Phe Asp Glu Leu Pro Glu Pro Pro Ala Thr Phe
 85 90 95

Cys Asp Pro Glu Glu Val Glu Gly Glu Pro Leu Ala Ala Pro Gln Thr
 100 105 110

Pro Thr Leu Pro Ser Ala Leu Glu Glu Leu Glu Gln Glu Gln Glu Pro
 115 120 125

Glu Pro His Leu Leu Thr Asn Gly Glu Thr Thr Gln Lys Glu Gly Thr
 130 135 140

Gln Ala Ser Glu Gly Tyr Phe Ser Gln Ser Gln Glu Glu Glu Phe Ala
 145 150 155 160

Gln Ser Glu Glu Leu Cys Ala Lys Ala Pro Pro Pro Val Phe Tyr Asn
 165 170 175

Lys Pro Pro Glu Ile Asp Ile Thr Cys Trp Asp Ala Asp Pro Val Pro
 180 185 190

Glu Glu Glu Glu Gly Phe Glu Gly Gly Asp
 195 200

<210> 1006

<211> 561

<212> PRT

<213> Homo sapiens

<400> 1006

Ser Ala Met Arg Lys Phe Ala Tyr Cys Lys Val Val Leu Ala Thr Ser
 1 5 10 15

974

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Trp | Val | Leu | Leu | Asp | Met | Phe | Leu | Leu | Leu | Tyr | Phe | Ser | Glu | 20 | 25 | 30 | |
| Cys | Asn | Lys | Cys | Asp | Glu | Lys | Lys | Glu | Arg | Gly | Leu | Pro | Ala | Gly | Asp | 35 | 40 | 45 | |
| Val | Leu | Glu | Pro | Val | Gln | Lys | Pro | His | Glu | Gly | Pro | Gly | Glu | Met | Gly | 50 | 55 | 60 | |
| Lys | Pro | Val | Val | Ile | Pro | Lys | Glu | Asp | Gln | Glu | Lys | Met | Lys | Glu | Met | 65 | 70 | 75 | 80 |
| Phe | Lys | Ile | Asn | Gln | Phe | Asn | Leu | Met | Ala | Ser | Glu | Met | Ile | Ala | Leu | 85 | 90 | 95 | |
| Asn | Arg | Ser | Leu | Pro | Asp | Val | Arg | Leu | Glu | Gly | Cys | Lys | Thr | Lys | Val | 100 | 105 | 110 | |
| Tyr | Pro | Asp | Asn | Leu | Pro | Thr | Thr | Ser | Val | Val | Ile | Val | Phe | His | Asn | 115 | 120 | 125 | |
| Glu | Ala | Trp | Ser | Thr | Leu | Leu | Arg | Thr | Val | His | Ser | Val | Ile | Asn | Arg | 130 | 135 | 140 | |
| Ser | Pro | Arg | His | Met | Ile | Glu | Glu | Ile | Val | Leu | Val | Asp | Asp | Ala | Ser | 145 | 150 | 155 | 160 |
| Glu | Arg | Asp | Phe | Leu | Lys | Arg | Pro | Leu | Glu | Ser | Tyr | Val | Lys | Lys | Leu | 165 | 170 | 175 | |
| Lys | Val | Pro | Val | His | Val | Ile | Arg | Met | Glu | Gln | Arg | Ser | Gly | Leu | Ile | 180 | 185 | 190 | |
| Arg | Ala | Arg | Leu | Lys | Gly | Ala | Ala | Val | Ser | Lys | Gly | Gln | Val | Ile | Thr | 195 | 200 | 205 | |
| Phe | Leu | Asp | Ala | His | Cys | Glu | Cys | Thr | Val | Gly | Trp | Leu | Glu | Pro | Leu | 210 | 215 | 220 | |
| Leu | Ala | Arg | Ile | Lys | His | Asp | Arg | Arg | Thr | Val | Val | Cys | Pro | Ile | Ile | 225 | 230 | 235 | 240 |
| Asp | Val | Ile | Ser | Asp | Asp | Thr | Phe | Glu | Tyr | Met | Ala | Gly | Ser | Asp | Met | 245 | 250 | 255 | |
| Thr | Tyr | Gly | Gly | Phe | Asn | Trp | Lys | Leu | Asn | Phe | Arg | Trp | Tyr | Pro | Val | 260 | 265 | 270 | |
| Pro | Gln | Arg | Glu | Met | Asp | Arg | Arg | Lys | Gly | Asp | Arg | Thr | Leu | Pro | Val | 275 | 280 | 285 | |

975

Arg Thr Pro Thr Met Ala Gly Gly Leu Phe Ser Ile Asp Arg Asp Tyr
 290 295 300

Phe Gln Glu Ile Gly Thr Tyr Asp Ala Gly Met Asp Ile Trp Gly Gly
 305 310 315 320

Glu Asn Leu Glu Ile Ser Phe Arg Ile Trp Gln Cys Gly Gly Thr Leu
 325 330 335

Glu Ile Val Thr Cys Ser His Val Gly His Val Phe Arg Lys Ala Thr
 340 345 350

Pro Tyr Thr Phe Pro Gly Gly Thr Gly Gln Ile Ile Asn Lys Asn Asn
 355 360 365

Arg Arg Leu Ala Glu Val Trp Met Asp Glu Phe Lys Asn Phe Phe Tyr
 370 375 380

Ile Ile Ser Pro Gly Val Thr Lys Val Asp Tyr Gly Asp Ile Ser Ser
 385 390 395 400

Arg Val Gly Leu Arg His Lys Leu Gln Cys Lys Pro Phe Ser Trp Tyr
 405 410 415

Leu Glu Asn Ile Tyr Pro Asp Ser Gln Ile Pro Arg His Tyr Phe Ser
 420 425 430

Leu Gly Glu Ile Arg Asn Val Glu Thr Asn Gln Cys Leu Asp Asn Met
 435 440 445

Ala Arg Lys Glu Asn Glu Lys Val Gly Ile Phe Asn Cys His Gly Met
 450 455 460

Gly Gly Asn Gln Val Phe Ser Tyr Thr Ala Asn Lys Glu Ile Arg Thr
 465 470 475 480

Asp Asp Leu Cys Leu Asp Val Ser Lys Leu Asn Gly Pro Val Thr Met
 485 490 495

Leu Lys Cys His His Leu Lys Gly Asn Gln Leu Trp Glu Tyr Asp Pro
 500 505 510

Val Lys Leu Thr Leu Gln His Val Asn Ser Asn Gln Cys Leu Asp Lys
 515 520 525

Ala Thr Glu Glu Asp Ser Gln Val Pro Ser Ile Arg Asp Cys Asn Gly
 530 535 540

Ser Arg Ser Gln Gln Trp Leu Leu Arg Asn Val Thr Leu Pro Glu Ile
 545 550 555 560

976

Phe

<210> 1007

<211> 189

<212> PRT

<213> Homo sapiens

<400> 1007

```

Phe Ile Pro Ile Gly Glu Asn Ser Ala Thr Gly Glu Asn Arg Leu Ala
 1             5             10             15

Ser Ala Leu Trp Ile Gly Asp Arg Ser Tyr Pro Gly Leu Ser Glu Gly
      20             25             30

Asn Ser Arg Pro Pro Ile Pro Gly Pro Pro Tyr Val Ala Ser Pro Asp
      35             40             45

Leu Trp Ser His Trp Glu Asp Ser Ala Leu Pro Pro Pro Ser Leu Arg
 50             55             60

Pro Val Gln Pro Thr Trp Glu Gly Ser Ser Glu Ala Gly Leu Asp Trp
 65             70             75             80

Ala Gly Ala Ser Phe Ser Pro Gly Thr Pro Met Trp Ala Ala Leu Asp
      85             90             95

Glu Gln Met Leu Gln Glu Gly Ile Gln Ala Ser Leu Leu Asp Gly Pro
      100             105             110

Ala Gln Glu Pro Gln Ser Ala Pro Trp Leu Ser Lys Ser Ser Val Ser
      115             120             125

Ser Leu Arg Leu Gln Gln Leu Glu Arg Met Gly Phe Pro Thr Glu Gln
      130             135             140

Ala Val Val Ala Leu Ala Ala Thr Gly Arg Val Glu Gly Ala Val Ser
      145             150             155             160

Leu Leu Val Gly Gly Gln Val Gly Thr Glu Thr Leu Val Thr His Gly
      165             170             175

Lys Gly Gly Pro Ala His Ser Glu Gly Pro Gly Pro Pro
      180             185

```

<210> 1008

<211> 300

977

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1008

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Lys | Ser | Ser | Xaa | Leu | Trp | Pro | His | Pro | Leu | Xaa | Arg | His | Arg |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Pro | Gly | Leu | Ala | Gly | Asn | Gly | Gly | Ile | Leu | Pro | Asn | Leu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Gly | Gly | Gly | Trp | Xaa | Trp | Trp | Glu | Gly | Asn | His | Val | Leu | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Phe | Leu | Val | Pro | Pro | Ile | Pro | Arg | Pro | Thr | Arg | His | His | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asp | Asn | Thr | His | Pro | Leu | Ala | Gln | Ala | Ser | Ile | His | Met | Cys | Cys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Phe | Ser | Ser | Arg | His | Ala | Asp | Asn | Pro | Thr | Arg | Pro | His | His | His |
| | | | | 85 | | | | | 90 | | | | 95 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Lys | Cys | Thr | His | Thr | Glu | Pro | His | Arg | Pro | Ser | Gly | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Ser | Leu | Gly | Phe | Pro | Leu | Ala | His | Phe | Gln | Gly | Pro | Gly | Ala |
| | | | 115 | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Lys | Cys | Glu | Ser | Ser | Val | Ala | Ala | Pro | Ser | Phe | Ser | Pro | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Ile | Gly | Pro | Ile | Gly | Lys | His | Arg | Gly | Leu | Thr | Leu | Phe | His |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Cys | Pro | Ala | Leu | Lys | Trp | Thr | Ile | Thr | Phe | Trp | Asp | Arg | Leu |
| | | | | 165 | | | | | 170 | | | | | | 175 |

978

Lys Phe Leu Lys Ser Leu His His Ser Val Pro Ser Lys Gly Ser Pro
 180 185 190
 Cys Gln Trp Gly Phe Glu Arg Glu Phe Leu Glu Pro Thr Phe Lys Phe
 195 200 205
 Cys Leu Ile Trp Arg Glu Thr Lys Ile Gly Arg Gly Lys Arg Thr Pro
 210 215 220
 Asp Val Leu Leu Leu Pro Glu Ile Leu Glu Thr Asp Ser Leu Asp Trp
 225 230 235 240
 Lys Met Asp Lys Ser Ala Leu Thr Trp Arg Val Gly Thr Arg Trp Gly
 245 250 255
 Pro Ala Leu Pro Thr Ala Ala Val Ala Ser Ser Leu Ala Gly Phe Ala
 260 265 270
 Gly Arg Gln Gln Glu Gly Glu Gly Gly Ser Thr Ala Arg Gly Thr Gly
 275 280 285
 Gly Ala Ala Gly Leu Gln Glu Leu Phe Phe His Cys
 290 295 300

<210> 1009

<211> 344

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1009

Arg Pro Pro Cys Pro His Ser Arg Ser Xaa Trp Arg Ile Leu Ser Leu
 1 5 10 15

Thr Pro Asn Pro Asp Pro Leu Pro Asn Met Ser Val Phe Phe Phe Ile
 20 25 30

Phe Leu Asn Ile Phe Xaa Leu Ala Phe Ser Ser Pro Gly Ser Gln Pro
 35 40 45

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Asn | Ser | Pro | Pro | Ser | Phe | Val | Cys | Trp | Ser | Arg | Gly | Phe | Met | 50 | 55 | 60 | |
| Glu | Met | Asn | Gly | Arg | Gly | Glu | Leu | Val | Glu | Ser | Leu | Lys | Arg | Phe | Cys | 65 | 70 | 75 | 80 |
| Ala | Ser | Thr | Arg | Leu | Pro | Pro | Thr | Pro | Leu | Leu | Leu | Phe | Pro | Glu | Glu | 85 | 90 | 95 | |
| Glu | Ala | Thr | Asn | Gly | Arg | Glu | Gly | Leu | Leu | Arg | Phe | Ser | Ser | Trp | Pro | 100 | 105 | 110 | |
| Phe | Ser | Ile | Gln | Asp | Val | Val | Gln | Pro | Leu | Thr | Leu | Gln | Val | Gln | Arg | 115 | 120 | 125 | |
| Pro | Leu | Val | Ser | Val | Thr | Val | Ser | Asp | Ala | Ser | Trp | Val | Ser | Glu | Leu | 130 | 135 | 140 | |
| Leu | Trp | Ser | Leu | Phe | Val | Pro | Phe | Thr | Val | Tyr | Gln | Val | Arg | Trp | Leu | 145 | 150 | 155 | 160 |
| Arg | Pro | Val | His | Arg | Gln | Leu | Gly | Glu | Ala | Asn | Glu | Glu | Phe | Ala | Leu | 165 | 170 | 175 | |
| Arg | Val | Gln | Gln | Leu | Val | Ala | Lys | Glu | Leu | Gly | Gln | Thr | Gly | Thr | Arg | 180 | 185 | 190 | |
| Leu | Thr | Pro | Ala | Asp | Lys | Ala | Glu | His | Met | Lys | Arg | Gln | Arg | His | Pro | 195 | 200 | 205 | |
| Arg | Leu | Arg | Pro | Gln | Ser | Ala | Gln | Ser | Ser | Phe | Pro | Pro | Ser | Pro | Gly | 210 | 215 | 220 | |
| Pro | Ser | Pro | Asp | Val | Gln | Leu | Ala | Thr | Leu | Ala | Gln | Arg | Val | Lys | Glu | 225 | 230 | 235 | 240 |
| Val | Leu | Pro | His | Val | Pro | Leu | Gly | Val | Ile | Gln | Arg | Asp | Leu | Ala | Lys | 245 | 250 | 255 | |
| Thr | Gly | Cys | Val | Asp | Leu | Thr | Ile | Thr | Asn | Leu | Leu | Glu | Gly | Ala | Val | 260 | 265 | 270 | |
| Ala | Phe | Met | Pro | Glu | Asp | Ile | Thr | Lys | Gly | Thr | Gln | Ser | Leu | Pro | Thr | 275 | 280 | 285 | |
| Ala | Ser | Ala | Ser | Lys | Phe | Pro | Ser | Ser | Gly | Pro | Val | Thr | Pro | Gln | Pro | 290 | 295 | 300 | |
| Thr | Ala | Leu | Thr | Phe | Ala | Lys | Ser | Ser | Trp | Ala | Arg | Gln | Glu | Ser | Leu | 305 | 310 | 315 | 320 |

980

Gln Glu Arg Lys Gln Ala Leu Tyr Glu Tyr Ala Arg Arg Arg Phe Thr
 325 330 335

Glu Arg Arg Ala Gln Glu Ala Asp
 340

<210> 1010

<211> 233

<212> PRT

<213> Homo sapiens

<400> 1010

Pro His Cys Glu Pro Asn Pro Gly Ala Gly Ala Met Val Leu Leu His
 1 5 10 15

Val Leu Phe Glu His Ala Val Gly Tyr Ala Leu Leu Ala Leu Lys Glu
 20 25 30

Val Glu Glu Ile Ser Leu Leu Gln Pro Gln Val Glu Glu Ser Val Leu
 35 40 45

Asn Leu Gly Lys Phe His Ser Ile Val Arg Leu Val Ala Phe Cys Pro
 50 55 60

Phe Ala Ser Ser Gln Val Ala Leu Glu Asn Ala Asn Ala Val Ser Glu
 65 70 75 80

Gly Val Val His Glu Asp Leu Arg Leu Leu Leu Glu Thr His Leu Pro
 85 90 95

Ser Lys Lys Lys Lys Val Leu Leu Gly Val Gly Asp Pro Lys Ile Gly
 100 105 110

Ala Ala Ile Gln Glu Glu Leu Gly Tyr Asn Cys Gln Thr Gly Gly Val
 115 120 125

Ile Ala Glu Ile Leu Arg Gly Val Arg Leu His Phe His Asn Leu Val
 130 135 140

Lys Gly Leu Thr Asp Leu Ser Ala Cys Lys Ala Gln Leu Gly Leu Gly
 145 150 155 160

His Ser Tyr Ser Arg Ala Lys Val Lys Phe Asn Val Asn Arg Val Asp
 165 170 175

Asn Met Ile Ile Gln Ser Ile Ser Leu Leu Asp Gln Leu Asp Lys Asp
 180 185 190

981

Ile Asn Thr Phe Ser Met Arg Val Arg Glu Trp Tyr Gly Tyr His Phe
 195 200 205

Pro Glu Leu Val Lys Ile Ile Asn Asp Asn Ala Thr Tyr Cys Arg Leu
 210 215 220

Ala Gln Phe Ile Gly Asn Arg Arg Asn
 225 230

<210> 1011

<211> 187

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1011

Gly Thr Ser Xaa Phe Ser Phe Pro Leu Gly Arg Glu Glu Ala Met Ala
 1 5 10 15

Ala Met Ala Ser Leu Gly Ala Leu Ala Leu Leu Leu Leu Ser Ser Leu
 20 25 30

Ser Arg Cys Ser Ala Glu Ala Cys Leu Glu Pro Gln Ile Thr Pro Ser
 35 40 45

Tyr Tyr Thr Thr Ser Asp Ala Val Ile Ser Thr Glu Thr Val Phe Ile
 50 55 60

Val Glu Ile Ser Leu Thr Cys Lys Asn Arg Val Gln Asn Met Ala Leu
 65 70 75 80

Tyr Ala Asp Val Gly Gly Lys Gln Phe Pro Val Thr Arg Gly Gln Asp
 85 90 95

Val Gly Arg Tyr Gln Val Ser Trp Ser Leu Asp His Lys Ser Ala His
 100 105 110

Ala Gly Thr Tyr Glu Val Arg Phe Phe Asp Glu Glu Ser Tyr Ser Leu
 115 120 125

Leu Arg Lys Ala Gln Arg Asn Asn Glu Asp Ile Ser Ile Ile Pro Pro
 130 135 140

Leu Phe Thr Val Ser Val Asp His Arg Gly Thr Trp Asn Gly Pro Trp
 145 150 155 160

982

Val Ser Thr Glu Val Leu Ala Ala Ala Ile Gly Leu Val Ile Tyr Tyr
 165 170 175

Leu Ala Phe Ser Ala Lys Ser His Ile Gln Ala
 180 185

<210> 1012

<211> 708

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (229)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (433)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1012

Ala Leu Arg Pro Ile Ser Ser Val Arg Ala Gly Asp Arg Cys Gln Arg
 1 5 10 15

Ser Xaa Ala Ala Asp Met Ala Ala Ser Thr Ala Ala Gly Lys Gln Arg
 20 25 30

Ile Pro Lys Val Ala Lys Val Lys Asn Lys Ala Pro Ala Glu Val Gln
 35 40 45

Ile Thr Ala Glu Gln Leu Leu Arg Glu Ala Lys Glu Arg Glu Leu Glu
 50 55 60

Leu Leu Pro Pro Pro Pro Gln Gln Lys Ile Thr Asp Glu Glu Glu Leu
 65 70 75 80

Asn Asp Tyr Lys Leu Arg Lys Arg Lys Thr Phe Glu Asp Asn Ile Arg

983

| 85 | | | | | | | | 90 | | | | 95 | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Arg | Thr | Val | Ile | Ser | Asn | Trp | Ile | Lys | Tyr | Ala | Gln | Trp | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Ser | Leu | Lys | Glu | Ile | Gln | Arg | Ala | Arg | Ser | Ile | Tyr | Glu | Arg | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Asp | Val | Asp | Tyr | Arg | Asn | Ile | Thr | Leu | Trp | Leu | Lys | Tyr | Ala | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Glu | Met | Lys | Asn | Arg | Gln | Val | Xaa | His | Ala | Arg | Asn | Ile | Trp | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Ala | Ile | Thr | Thr | Leu | Pro | Arg | Val | Asn | Gln | Phe | Trp | Tyr | Lys | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Tyr | Met | Glu | Glu | Met | Leu | Gly | Asn | Val | Ala | Gly | Ala | Arg | Gln | Val |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Phe | Glu | Arg | Trp | Met | Glu | Trp | Gln | Pro | Glu | Glu | Gln | Ala | Trp | His | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Ile | Asn | Phe | Glu | Leu | Arg | Tyr | Lys | Glu | Val | Asp | Arg | Ala | Arg | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Tyr | Glu | Arg | Xaa | Val | Leu | Val | His | Pro | Asp | Val | Lys | Asn | Trp | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Tyr | Ala | Arg | Phe | Glu | Glu | Lys | His | Ala | Tyr | Phe | Ala | His | Ala | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Lys | Val | Tyr | Glu | Arg | Ala | Val | Glu | Phe | Phe | Gly | Asp | Glu | His | Met | Asp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Glu | His | Leu | Tyr | Val | Ala | Phe | Ala | Lys | Phe | Glu | Glu | Asn | Gln | Lys | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Glu | Arg | Val | Arg | Val | Ile | Tyr | Lys | Tyr | Ala | Leu | Asp | Arg | Ile | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Gln | Asp | Ala | Gln | Glu | Leu | Phe | Lys | Asn | Tyr | Thr | Ile | Phe | Glu | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Lys | Phe | Gly | Asp | Arg | Arg | Gly | Ile | Glu | Asp | Ile | Ile | Val | Ser | Lys | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Phe | Gln | Tyr | Glu | Glu | Glu | Val | Lys | Ala | Asn | Pro | His | Asn | Tyr | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Trp | Phe | Asp | Tyr | Leu | Arg | Leu | Val | Glu | Ser | Asp | Ala | Glu | Ala | Glu |

984

| | | |
|---|-----|---------|
| 355 | 360 | 365 |
| Ala Val Arg Glu Val Tyr Glu Arg Ala Ile Ala Asn Val Pro Pro Ile | | |
| 370 | 375 | 380 |
| Gln Glu Lys Arg His Trp Lys Arg Tyr Ile Tyr Leu Trp Ile Asn Tyr | | |
| 385 | 390 | 395 400 |
| Ala Leu Tyr Glu Glu Leu Glu Ala Lys Asp Pro Glu Arg Thr Arg Gln | | |
| | 405 | 410 415 |
| Val Tyr Gln Ala Ser Leu Glu Leu Ile Pro His Lys Lys Phe Thr Phe | | |
| | 420 | 425 430 |
| Xaa Lys Met Trp Ile Leu Tyr Ala Gln Phe Glu Ile Arg Gln Lys Asn | | |
| | 435 | 440 445 |
| Leu Ser Leu Ala Arg Arg Ala Leu Gly Thr Ser Ile Gly Lys Cys Pro | | |
| | 450 | 455 460 |
| Lys Asn Lys Leu Phe Lys Val Tyr Ile Glu Leu Glu Leu Gln Leu Arg | | |
| 465 | 470 | 475 480 |
| Glu Phe Asp Arg Cys Arg Lys Leu Tyr Glu Lys Phe Leu Glu Phe Gly | | |
| | 485 | 490 495 |
| Pro Glu Asn Cys Thr Ser Trp Ile Lys Phe Ala Glu Leu Glu Thr Ile | | |
| | 500 | 505 510 |
| Leu Gly Asp Ile Asp Arg Ala Arg Ala Ile Tyr Glu Leu Ala Ile Ser | | |
| | 515 | 520 525 |
| Gln Pro Arg Leu Asp Met Pro Glu Val Leu Trp Lys Ser Tyr Ile Asp | | |
| | 530 | 535 540 |
| Phe Glu Ile Glu Gln Glu Glu Thr Glu Arg Thr Arg Asn Leu Tyr Arg | | |
| 545 | 550 | 555 560 |
| Arg Leu Leu Gln Arg Thr Gln His Val Lys Val Trp Ile Ser Phe Ala | | |
| | 565 | 570 575 |
| Gln Phe Glu Leu Ser Ser Gly Lys Glu Gly Ser Leu Thr Lys Cys Arg | | |
| | 580 | 585 590 |
| Gln Ile Tyr Glu Glu Ala Asn Lys Thr Met Arg Asn Cys Glu Glu Lys | | |
| | 595 | 600 605 |
| Glu Glu Arg Leu Met Leu Leu Glu Ser Trp Arg Ser Phe Glu Glu Glu | | |
| 610 | 615 | 620 |
| Phe Gly Thr Ala Ser Asp Lys Glu Arg Val Asp Lys Leu Met Pro Glu | | |

985

625 630 635 640
 Lys Val Lys Lys Arg Arg Lys Val Gln Thr Asp Asp Gly Ser Asp Ala
 645 650 655
 Gly Trp Glu Glu Tyr Phe Asp Tyr Ile Phe Pro Glu Asp Ala Ala Asn
 660 665 670
 Gln Pro Asn Leu Lys Leu Leu Ala Met Ala Lys Leu Trp Lys Lys Gln
 675 680 685
 Gln Gln Glu Lys Glu Asp Ala Glu His His Pro Asp Glu Asp Val Asp
 690 695 700
 Glu Ser Glu Ser
 705

<210> 1013
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 1013
 Leu Pro Pro Gln Val Ala Asp Thr Met Leu Pro Pro Met Ala Leu Pro
 1 5 10 15
 Ser Val Ser Trp Met Leu Leu Ser Cys Leu Met Leu Leu Ser Gln Val
 20 25 30
 Gln Gly Glu Glu Pro Gln Arg Glu Leu Pro Ser Ala Arg Ile Arg Cys
 35 40 45
 Pro Lys Gly Ser Lys Ala Tyr Gly Ser His Cys Tyr Ala Leu Phe Leu
 50 55 60
 Ser Pro Lys Ser Trp Thr Asp Ala Asp Leu Ala Cys Gln Lys Arg Pro
 65 70 75 80
 Ser Gly Asn Leu Val Ser Val Leu Ser Gly Ala Glu Gly Ser Phe Val
 85 90 95
 Ser Ser Leu Val Lys Ser Ile Gly Asn Ser Tyr Ser Tyr Val Trp Ile
 100 105 110
 Gly Leu His Asp Pro Thr Gln Gly Thr Glu Pro Asn Gly Glu Gly Trp
 115 120 125
 Glu Trp Ser Ser Ser Asp Val Met Asn Tyr Phe Ala Trp Glu Arg Asn
 130 135 140

986

Pro Ser Thr Ile Ser Ser Pro Gly His Cys Ala Ser Leu Ser Arg Ser
 145 150 155 160

Thr Ala Phe Leu Arg Trp Lys Asp Tyr Asn Cys Asn Val Arg Leu Pro
 165 170 175

Tyr Val Cys Lys Phe Thr Asp
 180

<210> 1014

<211> 213

<212> PRT

<213> Homo sapiens

<400> 1014

Val Thr Asp Gly Gly Ser Ala Arg Lys Pro Lys Met Ala Val Pro Ala
 1 5 10 15

Ala Leu Ile Leu Arg Glu Ser Pro Ser Met Lys Lys Ala Val Ser Leu
 20 25 30

Ile Asn Ala Ile Asp Thr Gly Arg Phe Pro Arg Leu Leu Thr Arg Ile
 35 40 45

Leu Gln Lys Leu His Leu Lys Ala Glu Ser Ser Phe Ser Glu Glu Glu
 50 55 60

Glu Glu Lys Leu Gln Ala Ala Phe Ser Leu Glu Lys Gln Asp Leu His
 65 70 75 80

Leu Val Leu Glu Thr Ile Ser Phe Ile Leu Glu Gln Ala Val Tyr His
 85 90 95

Asn Val Lys Pro Ala Ala Leu Gln Gln Gln Leu Glu Asn Ile His Leu
 100 105 110

Arg Gln Asp Lys Ala Glu Ala Phe Val Asn Thr Trp Ser Ser Met Gly
 115 120 125

Gln Glu Thr Val Glu Lys Phe Arg Gln Arg Ile Leu Ala Pro Cys Lys
 130 135 140

Leu Glu Thr Val Gly Trp Gln Leu Asn Leu Gln Met Ala His Ser Ala
 145 150 155 160

Gln Ala Lys Leu Lys Ser Pro Gln Ala Val Leu Gln Leu Gly Val Asn
 165 170 175

987

Asn Glu Asp Ser Lys Ser Leu Glu Lys Val Leu Val Glu Phe Ser His
 180 185 190

Lys Glu Leu Phe Asp Phe Tyr Asn Lys Leu Glu Thr Ile Gln Ala Gln
 195 200 205

Leu Asp Ser Leu Thr
 210

<210> 1015

<211> 544

<212> PRT

<213> Homo sapiens

<400> 1015

Ala Pro Gly Thr Met Asn Gly Glu Ala Ile Cys Ser Ala Leu Pro Thr
 1 5 10 15

Ile Pro Tyr His Lys Leu Ala Asp Leu Arg Tyr Leu Ser Arg Gly Ala
 20 25 30

Ser Gly Thr Val Ser Ser Ala Arg His Ala Asp Trp Arg Val Gln Val
 35 40 45

Ala Val Lys His Leu His Ile His Thr Pro Leu Leu Asp Ser Glu Arg
 50 55 60

Lys Asp Val Leu Arg Glu Ala Glu Ile Leu His Lys Ala Arg Phe Ser
 65 70 75 80

Tyr Ile Leu Pro Ile Leu Gly Ile Cys Asn Glu Pro Glu Phe Leu Gly
 85 90 95

Ile Val Thr Glu Tyr Met Pro Asn Gly Ser Leu Asn Glu Leu Leu His
 100 105 110

Arg Lys Thr Glu Tyr Pro Asp Val Ala Trp Pro Leu Arg Phe Arg Ile
 115 120 125

Leu His Glu Ile Ala Leu Gly Val Asn Tyr Leu His Asn Met Thr Pro
 130 135 140

Pro Leu Leu His His Asp Leu Lys Thr Gln Asn Ile Leu Leu Asp Asn
 145 150 155 160

Glu Phe His Val Lys Ile Ala Asp Phe Gly Leu Ser Lys Trp Arg Met
 165 170 175

Met Ser Leu Ser Gln Ser Arg Ser Ser Lys Ser Ala Pro Glu Gly Gly

| | | |
|---|-----|-----|
| 180 | 185 | 190 |
| Thr Ile Ile Tyr Met Pro Pro Glu Asn Tyr Glu Pro Gly Gln Lys Ser | | |
| 195 | 200 | 205 |
| Arg Ala Ser Ile Lys His Asp Ile Tyr Ser Tyr Ala Val Ile Thr Trp | | |
| 210 | 215 | 220 |
| Glu Val Leu Ser Arg Lys Gln Pro Phe Glu Asp Val Thr Asn Pro Leu | | |
| 225 | 230 | 235 |
| Gln Ile Met Tyr Ser Val Ser Gln Gly His Arg Pro Val Ile Asn Glu | | |
| 245 | 250 | 255 |
| Glu Ser Leu Pro Tyr Asp Ile Pro His Arg Ala Arg Met Ile Ser Leu | | |
| 260 | 265 | 270 |
| Ile Glu Ser Gly Trp Ala Gln Asn Pro Asp Glu Arg Pro Ser Phe Leu | | |
| 275 | 280 | 285 |
| Lys Cys Leu Ile Glu Leu Glu Pro Val Leu Arg Thr Phe Glu Glu Ile | | |
| 290 | 295 | 300 |
| Thr Phe Leu Glu Ala Val Ile Gln Leu Lys Lys Thr Lys Leu Gln Ser | | |
| 305 | 310 | 315 |
| Val Ser Ser Ala Ile His Leu Cys Asp Lys Lys Lys Met Glu Leu Ser | | |
| 325 | 330 | 335 |
| Leu Asn Ile Pro Val Asn His Gly Pro Gln Glu Glu Ser Cys Gly Ser | | |
| 340 | 345 | 350 |
| Ser Gln Leu His Glu Asn Ser Gly Ser Pro Glu Thr Ser Arg Ser Leu | | |
| 355 | 360 | 365 |
| Pro Ala Pro Gln Asp Asn Asp Phe Leu Ser Arg Lys Ala Gln Asp Cys | | |
| 370 | 375 | 380 |
| Tyr Phe Met Lys Leu His His Cys Pro Gly Asn His Ser Trp Asp Ser | | |
| 385 | 390 | 395 |
| Thr Ile Ser Gly Ser Gln Arg Ala Ala Phe Cys Asp His Lys Thr Thr | | |
| 405 | 410 | 415 |
| Pro Cys Ser Ser Ala Ile Ile Asn Pro Leu Ser Thr Ala Gly Asn Ser | | |
| 420 | 425 | 430 |
| Glu Arg Leu Gln Pro Gly Ile Ala Gln Gln Trp Ile Gln Ser Lys Arg | | |
| 435 | 440 | 445 |
| Glu Asp Ile Val Asn Gln Met Thr Glu Ala Cys Leu Asn Gln Ser Leu | | |

989

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 450 | | 455 | | 460 | | | | | | | | | | | |
| Asp | Ala | Leu | Leu | Ser | Arg | Asp | Leu | Ile | Met | Lys | Glu | Asp | Tyr | Glu | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Val | Ser | Thr | Lys | Pro | Thr | Arg | Thr | Ser | Lys | Val | Arg | Gln | Leu | Leu | Asp |
| | | | | 485 | | | | | 490 | | | | | | 495 |
| Thr | Thr | Asp | Ile | Gln | Gly | Glu | Glu | Phe | Ala | Lys | Val | Ile | Val | Gln | Lys |
| | | | 500 | | | | | 505 | | | | | | 510 | |
| Leu | Lys | Asp | Asn | Lys | Gln | Met | Gly | Leu | Gln | Pro | Tyr | Pro | Glu | Ile | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Val | Val | Ser | Arg | Ser | Pro | Ser | Leu | Asn | Leu | Leu | Gln | Asn | Lys | Ser | Met |
| | 530 | | | | | 535 | | | | | 540 | | | | |

<210> 1016

<211> 257

<212> PRT

<213> Homo sapiens

<400> 1016

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Pro | Ser | Ala | Pro | Arg | Ala | Gly | Lys | Ala | His | Leu | Lys | Arg | Ala | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Gly | Gln | Glu | Glu | Ala | Leu | Arg | Leu | His | Ala | Leu | Cys | Arg | Val | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Arg | Glu | Val | Asp | Leu | Leu | Arg | Ala | Val | Ile | Ser | Gln | Thr | Leu | Gln | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Leu | Ala | Lys | Tyr | Ala | Glu | Leu | Asp | Arg | Glu | Asp | Asp | Phe | Cys | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Glu | Ala | Pro | Asp | Ile | Gln | Pro | Lys | Thr | His | Gln | Lys | Pro | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Arg | Met | Pro | Arg | Leu | Ser | Gln | Gly | Lys | Gly | Pro | Asp | Ile | Phe | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Gly | Pro | Leu | Ser | Val | Phe | Ser | Ala | Lys | Asn | Arg | Trp | Arg | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Val | Gly | Pro | Val | His | Leu | Thr | Arg | Gly | Glu | Gly | Gly | Phe | Gly | Leu | Thr |
| | 115 | | | | | | 120 | | | | | 125 | | | |

990

Leu Arg Gly Asp Ser Pro Val Leu Ile Ala Ala Val Ile Pro Gly Ser
 130 135 140
 Gln Ala Ala Ala Ala Gly Leu Lys Glu Gly Asp Tyr Ile Val Ser Val
 145 150 155 160
 Asn Gly Gln Pro Cys Arg Trp Trp Arg His Ala Glu Val Val Thr Glu
 165 170 175
 Leu Lys Ala Ala Gly Glu Ala Gly Ala Ser Leu Gln Val Val Ser Leu
 180 185 190
 Leu Pro Ser Ser Arg Leu Pro Ser Leu Gly Asp Arg Arg Pro Val Leu
 195 200 205
 Leu Gly Pro Arg Gly Leu Leu Arg Ser Gln Arg Glu His Gly Cys Lys
 210 215 220
 Thr Pro Ala Ser Thr Trp Ala Ser Pro Arg Ala Leu Leu Asn Trp Ser
 225 230 235 240
 Arg Lys Ala Gln Gln Gly Lys Thr Gly Gly Cys Pro Ser Pro Val Pro
 245 250 255

Gln

<210> 1017
 <211> 248
 <212> PRT
 <213> Homo sapiens

<400> 1017
 Ala Ser Asp Arg Arg Gly Tyr Ser Ser Arg Ile Val Gly Gly Asn Met
 1 5 10 15
 Ser Leu Leu Ser Gln Trp Pro Trp Gln Ala Ser Leu Gln Phe Gln Gly
 20 25 30
 Tyr His Leu Cys Gly Gly Ser Val Ile Thr Pro Leu Trp Ile Ile Thr
 35 40 45
 Ala Ala His Cys Val Tyr Asp Leu Tyr Leu Pro Lys Ser Trp Thr Ile
 50 55 60
 Gln Val Gly Leu Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His Leu
 65 70 75 80

991

Val Glu Lys Ile Val Tyr His Ser Lys Tyr Lys Pro Lys Arg Leu Gly
 85 90 95
 Asn Asp Ile Ala Leu Met Lys Leu Ala Gly Pro Leu Thr Phe Asn Glu
 100 105 110
 Met Ile Gln Pro Val Cys Leu Pro Asn Ser Glu Glu Asn Phe Pro Asp
 115 120 125
 Gly Lys Val Cys Trp Thr Ser Gly Trp Gly Ala Thr Glu Asp Gly Ala
 130 135 140
 Gly Asp Ala Ser Pro Val Leu Asn His Ala Ala Val Pro Leu Ile Ser
 145 150 155 160
 Asn Lys Ile Cys Asn His Arg Asp Val Tyr Gly Gly Ile Ile Ser Pro
 165 170 175
 Ser Met Leu Cys Ala Gly Tyr Leu Thr Gly Gly Val Asp Ser Cys Gln
 180 185 190
 Gly Asp Ser Gly Gly Pro Leu Val Cys Gln Glu Arg Arg Leu Trp Lys
 195 200 205
 Leu Val Gly Ala Thr Ser Phe Gly Ile Gly Cys Ala Glu Val Asn Lys
 210 215 220
 Pro Gly Val Tyr Thr Arg Val Thr Ser Phe Leu Asp Trp Ile His Glu
 225 230 235 240
 Gln Met Glu Arg Asp Leu Lys Thr
 245

<210> 1018

<211> 224

<212> PRT

<213> Homo sapiens

<400> 1018

Gly Arg Val Ser Ala Pro Val Pro Gly Lys Met Val Leu Gly Gly Cys
 1 5 10 15
 Pro Val Ser Tyr Leu Leu Leu Cys Gly Gln Ala Ala Leu Leu Leu Gly
 20 25 30
 Asn Leu Leu Leu Leu His Cys Val Ser Arg Ser His Ser Gln Asn Ala
 35 40 45
 Thr Ala Glu Pro Glu Leu Thr Ser Ala Gly Ala Ala Gln Pro Glu Gly

992

| | | | | |
|---|-----|-----|-----|-----|
| 50 | | 55 | | 60 |
| Pro Gly Gly Ala Ala Ser Trp Glu Tyr Gly Asp Pro His Ser Pro Val | | | | |
| 65 | | 70 | | 75 |
| Ile Leu Cys Ser Tyr Leu Pro Asp Glu Phe Ile Glu Cys Glu Asp Pro | | | | |
| | 85 | | 90 | 95 |
| Val Asp His Val Gly Asn Ala Thr Ala Ser Gln Glu Leu Gly Tyr Gly | | | | |
| | 100 | | 105 | 110 |
| Cys Leu Lys Phe Gly Gly Gln Ala Tyr Ser Asp Val Glu His Thr Ser | | | | |
| | 115 | | 120 | 125 |
| Val Gln Cys His Ala Leu Asp Gly Ile Glu Cys Ala Ser Pro Arg Thr | | | | |
| | 130 | | 135 | 140 |
| Phe Leu Arg Glu Asn Lys Pro Cys Ile Lys Tyr Thr Gly His Tyr Phe | | | | |
| 145 | | 150 | | 155 |
| Ile Thr Thr Leu Leu Tyr Ser Phe Phe Leu Gly Cys Phe Gly Val Asp | | | | |
| | 165 | | 170 | 175 |
| Arg Phe Cys Leu Gly His Thr Gly Thr Ala Val Gly Lys Leu Leu Thr | | | | |
| | 180 | | 185 | 190 |
| Leu Gly Gly Leu Gly Ile Trp Trp Phe Val Asp Leu Ile Leu Leu Ile | | | | |
| | 195 | | 200 | 205 |
| Thr Gly Gly Leu Met Pro Ser Asp Gly Ser Asn Trp Cys Thr Val Tyr | | | | |
| | 210 | | 215 | 220 |

<210> 1019

<211> 53

<212> PRT

<213> Homo sapiens

<400> 1019

| | | | | |
|---|----|---|----|----|
| Asn Val Pro Val Cys His Leu Ser Thr Trp Lys Ile Leu Tyr Ile Trp | | | | |
| 1 | | 5 | | 10 |
| Lys Val Tyr Ala Ser Leu Asn Lys Tyr Met Leu Leu Asn Lys Pro Tyr | | | | |
| | 20 | | 25 | 30 |
| His Ser Leu Arg Asn Cys Ile Tyr Phe Ile Ile Cys Pro Phe Arg Asn | | | | |
| | 35 | | 40 | 45 |

993

Gln Val Phe Cys Ile
50

<210> 1020
<211> 70
<212> PRT
<213> Homo sapiens

<400> 1020
Phe Tyr Thr Asn Leu Ile Trp Leu Pro Phe Val Pro Leu Ile Ser Gln
1 5 10 15
Met Phe Lys Cys Ile Gly Phe Gly Phe Ser Met Tyr Lys Leu Pro Tyr
20 25 30
Leu Leu Met Ser Ile Phe Cys Leu Phe Asn Phe Val Tyr Leu Leu Phe
35 40 45
Cys Phe Trp Ile His Phe Leu Ile Arg Ser His Met Ile Asn Ile Ile
50 55 60
Ser Ile Val Ile Ile Pro
65 70

<210> 1021
<211> 337
<212> PRT
<213> Homo sapiens

<400> 1021
Arg Lys Arg Lys Gln Ala Ala Arg Ala Ala Glu Glu Pro Gly Ala Ala
1 5 10 15
Met Asp Val Arg Ala Leu Pro Trp Leu Pro Trp Leu Leu Trp Leu Leu
20 25 30
Cys Arg Gly Gly Gly Asp Ala Asp Ser Arg Ala Pro Phe Thr Pro Thr
35 40 45
Trp Pro Arg Ser Arg Glu Arg Glu Ala Ala Ala Phe Arg Glu Ser Leu
50 55 60
Asn Arg His Arg Tyr Leu Asn Ser Leu Phe Pro Ser Glu Asn Ser Thr
65 70 75 80
Ala Phe Tyr Gly Ile Asn Gln Phe Ser Tyr Leu Phe Pro Glu Glu Phe

995

<210> 1022

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1022

Ala Ser Ala Glu Phe Glu Met Ala Gly Gly Lys Ala Gly Lys Asp Ser
1 5 10 15
Gly Lys Ala Lys Thr Lys Ala Val Ser Arg Ser Gln Arg Ala Gly Leu
20 25 30
Gln Phe Pro Val Gly Arg Ile His Arg His Leu Lys Ser Arg Thr Thr
35 40 45
Ser His Gly Arg Val Gly Ala Thr Ala Ala Val Tyr Ser Ala Ala Ile
50 55 60
Leu Glu Tyr Leu Thr Ala Glu Val Leu Glu Leu Ala Gly Asn Ala Ser
65 70 75 80
Lys Asp Leu Lys Val Lys Arg Ile Thr Pro Arg His Leu Gln Leu Ala
85 90 95
Ile Arg Gly Asp Glu Glu Leu Asp Ser Leu Ile Lys Ala Thr Ile Ala
100 105 110
Gly Gly Gly Val Ile Pro His Ile His Lys Ser Leu Ile Gly Lys Lys
115 120 125
Gly Gln Gln Lys Thr Val
130

<210> 1023

<211> 226

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1023

[illegible]

997

<210> 1024

<211> 760

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (330)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1024

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Lys | Lys | Arg | Ala | Gly | Asn | Phe | Ala | Ile | Met | Glu | Ile | Gln | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Leu | Arg | Lys | Thr | Leu | Pro | Ile | Leu | Phe | Gly | Ser | Leu | Arg | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Cys | Leu | Ser | Asp | Lys | Tyr | Ser | Gln | Ala | Cys | His | Pro | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Val | Arg | Arg | Cys | Arg | Lys | Pro | Gly | Pro | Arg | Asp | Arg | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Val | Asp | Lys | Ser | Pro | Glu | Met | Trp | Cys | Ile | Val | Leu | Phe | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ala | Trp | Val | Tyr | Ala | Glu | Pro | Thr | Met | Tyr | Gly | Glu | Ile | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Asn | Tyr | Pro | Gln | Ala | Tyr | Pro | Ser | Glu | Val | Glu | Lys | Ser | Trp |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ile | Glu | Val | Pro | Glu | Gly | Tyr | Gly | Ile | His | Leu | Tyr | Phe | Thr | His |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Ile | Glu | Leu | Ser | Glu | Asn | Cys | Ala | Tyr | Asp | Ser | Val | Gln | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Gly | Asp | Thr | Glu | Glu | Gly | Arg | Leu | Cys | Gly | Gln | Arg | Ser | Ser |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Pro | His | Ser | Pro | Ile | Val | Glu | Glu | Phe | Gln | Val | Pro | Tyr | Asn |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Gln | Val | Ile | Phe | Lys | Ser | Asp | Phe | Ser | Asn | Glu | Glu | Arg | Phe |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Phe | Ala | Ala | Tyr | Tyr | Val | Ala | Thr | Asp | Ile | Asn | Glu | Cys | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Phe | Val | Asp | Val | Pro | Cys | Ser | His | Phe | Cys | Asn | Asn | Phe | Ile | Gly | 210 | 215 | 220 | |
| Gly | Tyr | Phe | Cys | Ser | Cys | Pro | Pro | Glu | Tyr | Phe | Leu | His | Asp | Asp | Met | 225 | 230 | 235 | 240 |
| Lys | Asn | Cys | Gly | Val | Asn | Cys | Ser | Gly | Asp | Val | Phe | Thr | Ala | Leu | Ile | 245 | 250 | 255 | |
| Gly | Glu | Ile | Ala | Ser | Pro | Asn | Tyr | Pro | Lys | Pro | Tyr | Pro | Glu | Asn | Ser | 260 | 265 | 270 | |
| Arg | Cys | Glu | Tyr | Gln | Ile | Arg | Leu | Glu | Lys | Gly | Phe | Gln | Val | Val | Val | 275 | 280 | 285 | |
| Thr | Leu | Arg | Arg | Glu | Asp | Phe | Asp | Val | Glu | Ala | Ala | Asp | Ser | Ala | Gly | 290 | 295 | 300 | |
| Asn | Cys | Leu | Asp | Ser | Leu | Val | Phe | Val | Ala | Gly | Asp | Arg | Gln | Phe | Gly | 305 | 310 | 315 | 320 |
| Pro | Tyr | Cys | Gly | His | Gly | Phe | Pro | Gly | Xaa | Leu | Asn | Ile | Glu | Thr | Lys | 325 | 330 | 335 | |
| Ser | Asn | Ala | Leu | Asp | Ile | Ile | Phe | Gln | Thr | Asp | Leu | Thr | Gly | Gln | Lys | 340 | 345 | 350 | |
| Lys | Gly | Trp | Lys | Leu | Arg | Tyr | His | Gly | Asp | Pro | Met | Pro | Cys | Pro | Lys | 355 | 360 | 365 | |
| Glu | Asp | Thr | Pro | Asn | Ser | Val | Trp | Glu | Pro | Ala | Lys | Ala | Lys | Tyr | Val | 370 | 375 | 380 | |
| Phe | Arg | Asp | Val | Val | Gln | Ile | Thr | Cys | Leu | Asp | Gly | Phe | Glu | Val | Val | 385 | 390 | 395 | 400 |
| Glu | Gly | Arg | Val | Gly | Ala | Thr | Ser | Phe | Tyr | Ser | Thr | Cys | Gln | Ser | Asn | 405 | 410 | 415 | |
| Gly | Lys | Trp | Ser | Asn | Ser | Lys | Leu | Lys | Cys | Gln | Pro | Val | Asp | Cys | Gly | 420 | 425 | 430 | |
| Ile | Pro | Glu | Ser | Ile | Glu | Asn | Gly | Lys | Val | Glu | Asp | Pro | Glu | Ser | Thr | 435 | 440 | 445 | |
| Leu | Phe | Gly | Ser | Val | Ile | Arg | Tyr | Thr | Cys | Glu | Glu | Pro | Tyr | Tyr | Tyr | 450 | 455 | 460 | |
| Met | Glu | Asn | Gly | Gly | Gly | Gly | Glu | Tyr | His | Cys | Ala | Gly | Asn | Gly | Ser | 465 | 470 | 475 | 480 |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Val | Asn | Glu | Val | Leu | Gly | Pro | Glu | Leu | Pro | Lys | Cys | Val | Pro | Val | 485 | 490 | 495 | |
| Cys | Gly | Val | Pro | Arg | Glu | Pro | Phe | Glu | Glu | Lys | Gln | Arg | Ile | Ile | Gly | 500 | 505 | 510 | |
| Gly | Ser | Asp | Ala | Asp | Ile | Lys | Asn | Phe | Pro | Trp | Gln | Val | Phe | Phe | Asp | 515 | 520 | 525 | |
| Asn | Pro | Trp | Ala | Gly | Gly | Ala | Leu | Ile | Asn | Glu | Tyr | Trp | Val | Leu | Thr | 530 | 535 | 540 | |
| Ala | Ala | His | Val | Val | Glu | Gly | Asn | Arg | Glu | Pro | Thr | Met | Tyr | Val | Gly | 545 | 550 | 555 | 560 |
| Ser | Thr | Ser | Val | Gln | Thr | Ser | Arg | Leu | Ala | Lys | Ser | Lys | Met | Leu | Thr | 565 | 570 | 575 | |
| Pro | Glu | His | Val | Phe | Ile | His | Pro | Gly | Trp | Lys | Leu | Leu | Glu | Val | Pro | 580 | 585 | 590 | |
| Glu | Gly | Arg | Thr | Asn | Phe | Asp | Asn | Asp | Ile | Ala | Leu | Val | Arg | Leu | Lys | 595 | 600 | 605 | |
| Asp | Pro | Val | Lys | Met | Gly | Pro | Thr | Val | Ser | Pro | Ile | Cys | Leu | Pro | Gly | 610 | 615 | 620 | |
| Thr | Ser | Ser | Asp | Tyr | Asn | Leu | Met | Asp | Gly | Asp | Leu | Gly | Leu | Ile | Ser | 625 | 630 | 635 | 640 |
| Gly | Trp | Gly | Arg | Thr | Glu | Lys | Arg | Asp | Arg | Ala | Val | Arg | Leu | Lys | Ala | 645 | 650 | 655 | |
| Ala | Arg | Leu | Pro | Val | Ala | Pro | Leu | Arg | Lys | Cys | Lys | Glu | Val | Lys | Val | 660 | 665 | 670 | |
| Glu | Lys | Pro | Thr | Ala | Asp | Ala | Glu | Ala | Tyr | Val | Phe | Thr | Pro | Asn | Met | 675 | 680 | 685 | |
| Ile | Cys | Ala | Gly | Gly | Glu | Lys | Gly | Met | Asp | Ser | Cys | Lys | Gly | Asp | Ser | 690 | 695 | 700 | |
| Gly | Gly | Ala | Phe | Ala | Val | Gln | Asp | Pro | Asn | Asp | Lys | Thr | Lys | Phe | Tyr | 705 | 710 | 715 | 720 |
| Ala | Ala | Gly | Leu | Val | Ser | Trp | Gly | Pro | Gln | Cys | Gly | Thr | Tyr | Gly | Leu | 725 | 730 | 735 | |
| Tyr | Thr | Arg | Val | Lys | Asn | Tyr | Val | Asp | Trp | Ile | Met | Lys | Thr | Met | Gln | 740 | 745 | 750 | |

1000

Glu Asn Ser Thr Pro Arg Glu Asp
 755 760

<210> 1025
 <211> 216
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (115)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (139)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1025
 Gly Gly Gly Arg Leu Arg Arg Arg Arg Ser Gly Ser Pro Gly Trp Arg
 1 5 10 15
 Ala Pro Arg Thr Gly Met Leu Leu Gly Leu Ala Ala Met Glu Leu Lys
 20 25 30
 Val Trp Val Asp Gly Ile Gln Arg Val Val Cys Gly Val Ser Glu Gln
 35 40 45
 Thr Thr Cys Gln Glu Val Val Ile Ala Leu Ala Gln Ala Ile Gly Gln
 50 55 60
 Thr Gly Arg Phe Val Leu Val Gln Arg Leu Arg Glu Lys Glu Arg Gln
 65 70 75 80
 Leu Leu Pro Gln Glu Cys Pro Val Gly Ala Gln Ala Thr Cys Gly Gln
 85 90 95
 Phe Ala Ser Asp Val Gln Phe Val Leu Arg Arg Thr Gly Pro Ser Leu
 100 105 110
 Ala Gly Xaa Pro Ser Ser Asp Ser Cys Pro Pro Pro Glu Arg Cys Leu
 115 120 125
 Ile Arg Ala Ser Leu Pro Val Lys Pro Arg Xaa Ala Leu Gly Cys Glu
 130 135 140
 Pro Arg Lys Thr Leu Thr Pro Glu Pro Ala Pro Ser Leu Ser Arg Pro
 145 150 155 160

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Ala | Ala | Cys | Glu | His | Pro | His | Gln | Ala | Ala | Ala | Gln | Thr | Cys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Ala | Trp | Ser | Ser | Gly | Cys | Arg | Gly | Met | Leu | Arg | Ser | Trp | Ala | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Pro | Ser | Gly | Ser | Lys | Ser | Cys | Ala | Gly | Ser | Arg | Pro | Gly | Ser | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Asp | Arg | His | Ala | Cys | Arg | His | | | | | | | | |
| | 210 | | | | | 215 | | | | | | | | | |

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

Gly Thr Ser Ser Asp Ile Leu Lys Gly Asn Phe Ser Ile Arg Thr Ala
1 5 10 15

Lys Met Gln Gln His Val Cys Glu Thr Ile Ile Arg Ile Phe Lys Arg
20 25 30

His Gly Ala Val Gln Leu Cys Thr Pro Leu Leu Leu Pro Arg Asn Arg
35 40 45

Gln Ile Tyr Glu His Asn Glu Ala Ala Leu Phe Met Asp His Ser Gly
50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Val | Met | Leu | Pro | Phe | Asp | Leu | Arg | Ile | Pro | Phe | Ala | Arg | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Val Ala Arg Asn Asn Ile Leu Asn Leu Lys Arg Tyr Cys Ile Glu Arg
85 90 95

Val Phe Arg Pro Arg Lys Leu Asp Arg Phe His Pro Lys Glu Leu Leu
100 105 110

1002

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Cys | Ala | Phe | Asp | Ile | Val | Thr | Ser | Thr | Thr | Asn | Ser | Phe | Leu | Pro | 115 | 120 | 125 |
| Thr | Ala | Glu | Ile | Ile | Tyr | Thr | Ile | Tyr | Glu | Ile | Ile | Gln | Glu | Phe | Pro | 130 | 135 | 140 |
| Ala | Leu | Gln | Glu | Arg | Asn | Tyr | Ser | Ile | Tyr | Leu | Asn | His | Thr | Met | Leu | 145 | 150 | 155 |
| Leu | Lys | Ala | Ile | Leu | Leu | His | Cys | Gly | Ile | Pro | Glu | Asp | Lys | Leu | Ser | 165 | 170 | 175 |
| Gln | Val | Tyr | Ile | Ile | Leu | Tyr | Asp | Ala | Val | Thr | Glu | Lys | Leu | Thr | Arg | 180 | 185 | 190 |
| Arg | Glu | Val | Glu | Ala | Lys | Phe | Cys | Asn | Leu | Ser | Leu | Ser | Ser | Asn | Ser | 195 | 200 | 205 |
| Leu | Cys | Arg | Leu | Tyr | Lys | Phe | Ile | Glu | Gln | Lys | Gly | Asp | Leu | Gln | Asp | 210 | 215 | 220 |
| Leu | Met | Pro | Thr | Ile | Asn | Ser | Leu | Ile | Lys | Gln | Lys | Thr | Gly | Ile | Ala | 225 | 230 | 235 |
| Gln | Leu | Val | Lys | Tyr | Gly | Leu | Lys | Asp | Leu | Glu | Glu | Val | Val | Gly | Leu | 245 | 250 | 255 |
| Leu | Lys | Lys | Leu | Gly | Ile | Lys | Leu | Gln | Val | Leu | Ile | Asn | Leu | Gly | Leu | 260 | 265 | 270 |
| Val | Tyr | Lys | Val | Gln | Gln | His | Asn | Gly | Ile | Ile | Phe | Gln | Phe | Val | Ala | 275 | 280 | 285 |
| Phe | Ile | Lys | Arg | Arg | Gln | Arg | Ala | Val | Pro | Glu | Ile | Leu | Ala | Xaa | Gly | 290 | 295 | 300 |
| Gly | Arg | Tyr | Asp | Leu | Leu | Ile | Pro | Gln | Phe | Arg | Gly | Pro | Gln | Ala | Leu | 305 | 310 | 315 |
| Gly | Pro | Val | Pro | Thr | Ala | Ile | Gly | Val | Ser | Ile | Ala | Ile | Asp | Lys | Ile | 325 | 330 | 335 |
| Ser | Ala | Ala | Val | Leu | Asn | Met | Glu | Glu | Ser | Val | Thr | Ile | Ser | Ser | Cys | 340 | 345 | 350 |
| Asp | Leu | Leu | Val | Val | Ser | Xaa | Gly | Gln | Met | Ser | Met | Ser | Arg | Ala | Ile | 355 | 360 | 365 |
| Asn | Leu | Thr | Gln | Lys | Leu | Trp | Thr | Ala | Gly | Ile | Thr | Ala | Glu | Ile | Met | 370 | 375 | 380 |

1003

Tyr Asp Trp Ser Gln Ser Gln Glu Glu Leu Gln Glu Tyr Cys Arg His
 385 390 395 400
 His Glu Ile Thr Tyr Val Ala Leu Val Ser Asp Lys Glu Gly Ser His
 405 410 415
 Val Lys Val Lys Ser Phe Glu Lys Glu Arg Gln Thr Glu Lys Arg Val
 420 425 430
 Leu Glu Thr Glu Leu Val Asp His Val Leu Gln Lys Leu Arg Thr Lys
 435 440 445
 Val Thr Asp Glu Arg Asn Gly Arg Glu Ala Ser Asp Asn Leu Ala Val
 450 455 460
 Gln Asn Leu Lys Gly Ser Phe Ser Asn Ala Ser Gly Leu Phe Glu Ile
 465 470 475 480
 His Gly Ala Thr Val Val Pro Ile Val Ser Val Leu Ala Pro Glu Lys
 485 490 495
 Leu Ser Ala Ser Thr Arg Arg Arg Tyr Glu Thr Gln Val Gln Thr Arg
 500 505 510
 Leu Gln Thr Ser Leu Ala Asn Leu His Gln Lys Ser Ser Glu Ile Glu
 515 520 525
 Ile Leu Ala Val Asp Leu Pro Lys Glu Thr Ile Leu Gln Phe Leu Ser
 530 535 540
 Leu Glu Trp Asp Ala Asp Glu Gln Ala Phe Asn Thr Thr Val Lys Gln
 545 550 555 560
 Leu Leu Ser Arg Leu Pro Lys Gln Arg Tyr Leu Lys Leu Val Cys Asp
 565 570 575
 Glu Ile Tyr Asn Ile Lys Val Glu Lys Lys Val Ser Val Leu Phe Leu
 580 585 590
 Tyr Ser Tyr Arg Asp Asp Tyr Tyr Arg Ile Leu Phe
 595 600

<210> 1027

<211> 459

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

Thr Ser Cys Gly Ile Asn Thr Lys Phe Thr Ser Lys Glu Pro Ile Phe
1 5 10 15

Leu Thr Gln Leu Leu His Phe Ser Asn Leu Xaa Gln Glu Tyr Lys Ile
20 25 30

Asn Ser Arg Leu Leu Gln Asn Ile Leu Asp Ala Gly Phe Gln Met Pro
35 40 45

Thr Pro Ile Gln Met Gln Ala Ile Pro Val Met Leu His Gly Arg Glu
50 55 60

Leu Leu Ala Ser Ala Pro Thr Gly Ser Gly Lys Thr Leu Ala Phe Ser
65 70 75 80

Ile Pro Ile Leu Met Gln Leu Lys Gln Pro Ala Asn Lys Gly Phe Arg
85 90 95

Ala Leu Ile Ile Ser Pro Thr Arg Glu Leu Ala Ser Gln Ile His Arg
100 105 110

Glu Leu Ile Lys Ile Ser Glu Gly Thr Gly Phe Arg Ile His Met Ile
115 120 125

His Lys Ala Ala Val Ala Ala Lys Lys Phe Gly Pro Lys Ser Ser Lys
130 135 140

Lys Phe Asp Ile Leu Val Thr Thr Pro Asn Arg Leu Ile Tyr Leu Leu
145 150 155 160

Lys Gln Asp Pro Pro Gly Ile Asp Leu Ala Ser Val Glu Trp Leu Val
165 170 175

Val Asp Glu Ser Asp Lys Leu Phe Glu Asp Gly Lys Thr Gly Phe Arg
180 185 190

Asp Gln Leu Ala Ser Ile Phe Leu Ala Cys Thr Ser His Lys Val Arg
195 200 205

Arg Ala Met Phe Ser Ala Thr Phe Ala Tyr Asp Val Glu Gln Trp Cys
210 215 220

Lys Leu Asn Leu Asp Asn Val Ile Ser Val Ser Ile Gly Ala Arg Asn
225 230 235 240

Ser Ala Val Glu Thr Val Glu Gln Glu Leu Leu Phe Val Gly Ser Glu

1005

| | | | | | |
|---|-----|--|-----|--|-----|
| | 245 | | 250 | | 255 |
| Thr Gly Lys Leu Leu Ala Val Arg Glu Leu Val Lys Lys Gly Phe Asn | | | | | |
| | 260 | | 265 | | 270 |
| Pro Pro Val Leu Val Phe Val Gln Ser Ile Glu Arg Ala Lys Glu Leu | | | | | |
| | 275 | | 280 | | 285 |
| Phe His Glu Leu Ile Tyr Glu Gly Ile Asn Val Asp Val Ile His Ala | | | | | |
| | 290 | | 295 | | 300 |
| Glu Arg Thr Gln Gln Gln Arg Asp Asn Thr Val His Ser Phe Arg Ala | | | | | |
| | 305 | | 310 | | 315 |
| Gly Lys Ile Trp Val Leu Ile Cys Thr Ala Leu Leu Ala Arg Gly Ile | | | | | |
| | 325 | | 330 | | 335 |
| Asp Phe Lys Gly Val Asn Leu Val Ile Asn Tyr Asp Phe Pro Thr Ser | | | | | |
| | 340 | | 345 | | 350 |
| Ser Val Glu Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala Gly Asn | | | | | |
| | 355 | | 360 | | 365 |
| Lys Gly Lys Ala Ile Thr Phe Phe Thr Glu Asp Asp Lys Pro Leu Leu | | | | | |
| | 370 | | 375 | | 380 |
| Arg Ser Val Ala Asn Val Ile Gln Gln Ala Gly Cys Pro Val Pro Glu | | | | | |
| | 385 | | 390 | | 395 |
| Tyr Ile Lys Gly Phe Gln Lys Leu Leu Ser Lys Gln Lys Lys Lys Met | | | | | |
| | 405 | | 410 | | 415 |
| Ile Lys Lys Pro Leu Glu Arg Glu Ser Ile Ser Thr Thr Pro Lys Cys | | | | | |
| | 420 | | 425 | | 430 |
| Phe Leu Glu Lys Ala Lys Asp Lys Gln Lys Lys Val Thr Gly Gln Asn | | | | | |
| | 435 | | 440 | | 445 |
| Ser Lys Lys Lys Val Ala Leu Glu Asp Lys Ser | | | | | |
| | 450 | | 455 | | |

<210> 1028

<211> 68

<212> PRT

<213> Homo sapiens

<400> 1028

| |
|---|
| Gln Arg Gly Phe Tyr Ala Asn Ala Leu Thr Ser Ala Leu Gly Asn Glu |
| 1 5 10 15 |

1006

Arg Val Thr Ser Ala Ser Ser Leu Ala Ser Phe Leu Val Leu Glu Arg
 20 25 30

Leu Thr Asn Val Cys His Ser His Lys Cys Phe Glu Leu Asp Leu Cys
 35 40 45

Asp Leu Cys Phe Phe Ser Phe Ser Leu Glu Ser Glu Tyr His Cys Leu
 50 55 60

Pro Pro Arg Ser
 65

<210> 1029
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 1029
 Tyr Pro Leu Thr Pro Ala Pro Ala Pro His Asp Pro Ser Pro Arg Ala
 1 5 10 15

His Gly Arg Gly Asp Asp Val Thr Gln Ala Thr Ala Leu Thr Ser His
 20 25 30

Ile Thr Val Val Met Ala Ser Arg Gly His Val Asp Val Thr Lys Arg
 35 40 45

Tyr Ser Asp Gly Val Val Gln Met Gln His Val Ala His Arg His Gly
 50 55 60

Glu Leu Gly Met Thr Ser His Arg Asp Ala Ala Thr Thr Ser Arg Ala
 65 70 75 80

Met Ser Thr Ser His Ile Leu Met Ser His Arg Arg Gly Asp Gly Ile
 85 90 95

Thr Gln Thr Val Met Met Ser His Thr Asp Thr Val Thr Thr His Thr
 100 105 110

Met Thr Thr Thr Pro Ile Asp Met Ala Pro Thr Ser His Ala Arg Met
 115 120 125

Pro Phe His Thr His Phe Leu Pro Asn Ser His Leu Val Ser Arg Ser
 130 135 140

Pro Asp Pro Gly Thr Arg Ala Lys Val Pro Thr Gly Ser His Pro Leu
 145 150 155 160

1007

Pro His Ser Pro Gly Pro Gln His Leu Pro Ser Ser Ser Phe Leu Ala
 165 170 175

Ser Gln Pro Leu Pro His Pro Gln Cys Leu Asp Pro Glu Val Arg Thr
 180 185 190

Gly Ser His Ser Pro Pro Leu Leu Glu Arg Glu Cys Phe Gln Asp Pro
 195 200 205

Leu Gly Ala Leu Ser Arg Gly
 210 215

<210> 1030

<211> 297

<212> PRT

<213> Homo sapiens

<400> 1030

Lys Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp Pro Arg
 1 5 10 15

Val Arg Pro Arg Val Arg Pro Arg Val Arg Trp Thr Ala Ala Met Arg
 20 25 30

Leu Thr Val Leu Cys Ala Val Cys Leu Leu Pro Gly Ser Leu Ala Leu
 35 40 45

Pro Leu Pro Gln Glu Ala Gly Gly Met Ser Glu Leu Gln Trp Glu Gln
 50 55 60

Ala Gln Asp Tyr Leu Lys Arg Phe Tyr Leu Tyr Asp Ser Glu Thr Lys
 65 70 75 80

Asn Ala Asn Ser Leu Glu Ala Lys Leu Lys Glu Met Gln Lys Phe Phe
 85 90 95

Gly Leu Pro Ile Thr Gly Met Leu Asn Ser Arg Val Ile Glu Ile Met
 100 105 110

Gln Lys Pro Arg Cys Gly Val Pro Asp Val Ala Glu Tyr Ser Leu Phe
 115 120 125

Pro Asn Ser Pro Lys Trp Thr Ser Lys Val Val Thr Tyr Arg Ile Val
 130 135 140

Ser Tyr Thr Arg Asp Leu Pro His Ile Thr Val Asp Arg Leu Val Ser
 145 150 155 160

Lys Ala Leu Asn Met Trp Gly Lys Glu Ile Pro Leu His Phe Arg Lys

1008

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 165 | | | | | | | | 170 | | | | 175 | | | |
| Val | Val | Trp | Gly | Thr | Ala | Asp | Ile | Met | Ile | Gly | Phe | Ala | Arg | Gly | Ala |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| His | Gly | Asp | Ser | Tyr | Pro | Phe | Asp | Gly | Pro | Gly | Asn | Thr | Leu | Ala | His |
| | | | 195 | | | | 200 | | | | | | 205 | | |
| Ala | Phe | Ala | Pro | Gly | Thr | Gly | Leu | Gly | Gly | Asp | Ala | His | Phe | Asp | Glu |
| | | | 210 | | | | 215 | | | | | | 220 | | |
| Asp | Glu | Arg | Trp | Thr | Asp | Gly | Ser | Ser | Leu | Gly | Ile | Asn | Phe | Leu | Tyr |
| 225 | | | | 230 | | | | | | 235 | | | 240 | | |
| Ala | Ala | Thr | His | Glu | Leu | Gly | His | Ser | Leu | Gly | Met | Gly | His | Ser | Ser |
| | | | 245 | | | | | | 250 | | | 255 | | | |
| Asp | Pro | Asn | Ala | Val | Met | Tyr | Pro | Thr | Tyr | Gly | Asn | Gly | Asp | Pro | Gln |
| | | | 260 | | | | | | 265 | | | 270 | | | |
| Asn | Phe | Lys | Leu | Ser | Gln | Asp | Asp | Ile | Lys | Gly | Ile | Gln | Lys | Leu | Tyr |
| | | | 275 | | | 280 | | | | | | 285 | | | |
| Gly | Lys | Arg | Ser | Asn | Ser | Arg | Lys | Lys | | | | | | | |
| | | | 290 | | | 295 | | | | | | | | | |

```
<210> 1031
<211> 571
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (484)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 1031
Arg Val Arg Ser Lys Val Pro Arg Cys Val Asn Thr Gln Pro Gly Phe
1 5 10 15

1009

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| His | Cys | Leu | Pro | Cys | Pro | Pro | Arg | Tyr | Arg | Gly | Asn | Gln | Pro | Val | Gly | |
| | | | 20 | | | | | | 25 | | | 30 | | | | |
| Val | Gly | Leu | Glu | Ala | Ala | Lys | Thr | Glu | Lys | Gln | Xaa | Cys | Glu | Pro | Glu | |
| | | | 35 | | | | | | 40 | | | 45 | | | | |
| Asn | Pro | Cys | Lys | Asp | Lys | Thr | His | Asn | Cys | His | Lys | His | Ala | Glu | Cys | |
| | | | 50 | | | | | | 55 | | | 60 | | | | |
| Ile | Tyr | Leu | Gly | His | Phe | Ser | Asp | Pro | Met | Tyr | Lys | Cys | Glu | Cys | Gln | |
| | | | 65 | | | | | | 70 | | | 75 | | | 80 | |
| Xaa | Gly | Tyr | Ala | Gly | Asp | Gly | Leu | Ile | Cys | Gly | Glu | Asp | Ser | Asp | Leu | |
| | | | 85 | | | | | | 90 | | | 95 | | | | |
| Asp | Gly | Trp | Pro | Asn | Leu | Asn | Leu | Val | Cys | Ala | Thr | Asn | Ala | Thr | Tyr | |
| | | | 100 | | | | | | 105 | | | 110 | | | | |
| His | Cys | Ile | Lys | Asp | Asn | Cys | Pro | His | Leu | Pro | Asn | Ser | Gly | Gln | Glu | |
| | | | 115 | | | | | | 120 | | | 125 | | | | |
| Asp | Phe | Asp | Lys | Asp | Gly | Ile | Gly | Asp | Ala | Cys | Asp | Asp | Asp | Asp | Asp | |
| | | | 130 | | | | | | 135 | | | 140 | | | | |
| Asn | Asp | Gly | Val | Thr | Asp | Glu | Lys | Asp | Asn | Cys | Gln | Leu | Leu | Phe | Asn | |
| | | | 145 | | | | | | 150 | | | 155 | | | 160 | |
| Pro | Arg | Gln | Ala | Asp | Tyr | Asp | Lys | Asp | Glu | Val | Gly | Asp | Arg | Cys | Asp | |
| | | | 165 | | | | | | 170 | | | 175 | | | | |
| Asn | Cys | Pro | Tyr | Val | His | Asn | Pro | Ala | Gln | Ile | Asp | Thr | Asp | Asn | Asn | |
| | | | 180 | | | | | | 185 | | | 190 | | | | |
| Gly | Glu | Gly | Asp | Ala | Cys | Ser | Val | Asp | Ile | Asp | Gly | Asp | Asp | Val | Phe | |
| | | | 195 | | | | | | 200 | | | 205 | | | | |
| Asn | Glu | Arg | Asp | Asn | Cys | Pro | Tyr | Val | Tyr | Asn | Thr | Asp | Gln | Arg | Asp | |
| | | | 210 | | | | | | 215 | | | 220 | | | | |
| Thr | Asp | Gly | Asp | Gly | Val | Gly | Asp | His | Cys | Asp | Asn | Cys | Pro | Leu | Val | |
| | | | 225 | | | | | | 230 | | | 235 | | | 240 | |
| His | Asn | Pro | Asp | Gln | Thr | Asp | Val | Asp | Asn | Asp | Leu | Val | Gly | Asp | Gln | |
| | | | 245 | | | | | | 250 | | | 255 | | | | |
| Cys | Asp | Asn | Asn | Glu | Asp | Ile | Asp | Asp | Asp | Gly | His | Gln | Asn | Asn | Gln | |
| | | | 260 | | | | | | 265 | | | 270 | | | | |
| Asp | Asn | Cys | Pro | Tyr | Ile | Ser | Asn | Ala | Asn | Gln | Ala | Asp | His | Asp | Arg | |
| | | | 275 | | | | | | 280 | | | 285 | | | | |

1010

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Gln | Gly | Asp | Ala | Cys | Asp | Pro | Asp | Asp | Asp | Asn | Asp | Gly | Val | 290 | 295 | 300 | |
| Pro | Asp | Asp | Arg | Asp | Asn | Cys | Arg | Leu | Val | Phe | Asn | Pro | Asp | Gln | Glu | 305 | 310 | 315 | 320 |
| Asp | Leu | Asp | Gly | Asp | Gly | Arg | Gly | Asp | Ile | Cys | Lys | Asp | Asp | Phe | Asp | 325 | 330 | 335 | |
| Asn | Asp | Asn | Ile | Pro | Asp | Ile | Asp | Asp | Val | Cys | Pro | Glu | Asn | Asn | Ala | 340 | 345 | 350 | |
| Ile | Ser | Glu | Thr | Asp | Phe | Arg | Asn | Phe | Gln | Met | Val | Pro | Leu | Asp | Pro | 355 | 360 | 365 | |
| Lys | Gly | Thr | Thr | Gln | Ile | Asp | Pro | Asn | Trp | Val | Ile | Arg | His | Gln | Gly | 370 | 375 | 380 | |
| Lys | Glu | Leu | Val | Gln | Thr | Ala | Asn | Ser | Asp | Pro | Gly | Ile | Ala | Val | Gly | 385 | 390 | 395 | 400 |
| Phe | Asp | Glu | Phe | Gly | Ser | Val | Asp | Phe | Ser | Gly | Thr | Phe | Tyr | Val | Asn | 405 | 410 | 415 | |
| Thr | Asp | Arg | Asp | Asp | Asp | Tyr | Ala | Gly | Phe | Val | Phe | Gly | Tyr | Gln | Ser | 420 | 425 | 430 | |
| Ser | Ser | Arg | Phe | Tyr | Val | Val | Met | Trp | Lys | Gln | Val | Thr | Gln | Thr | Tyr | 435 | 440 | 445 | |
| Trp | Glu | Asp | Gln | Pro | Thr | Arg | Ala | Tyr | Gly | Tyr | Ser | Gly | Val | Ser | Leu | 450 | 455 | 460 | |
| Lys | Val | Val | Asn | Ser | Thr | Thr | Gly | Thr | Gly | Glu | His | Leu | Arg | Asn | Ala | 465 | 470 | 475 | 480 |
| Leu | Trp | His | Xaa | Gly | Asn | Thr | Pro | Gly | Gln | Val | Arg | Thr | Leu | Trp | His | 485 | 490 | 495 | |
| Asp | Pro | Arg | Asn | Ile | Gly | Trp | Lys | Asp | Tyr | Thr | Ala | Tyr | Arg | Trp | His | 500 | 505 | 510 | |
| Leu | Thr | His | Arg | Pro | Lys | Thr | Gly | Tyr | Ile | Arg | Val | Leu | Val | His | Glu | 515 | 520 | 525 | |
| Gly | Lys | Gln | Val | Met | Ala | Asp | Ser | Gly | Pro | Ile | Tyr | Asp | Gln | Thr | Tyr | 530 | 535 | 540 | |
| Ala | Gly | Gly | Arg | Leu | Gly | Leu | Phe | Val | Phe | Ser | Gln | Glu | Met | Val | Tyr | 545 | 550 | 555 | 560 |

1011

Phe Ser Asp Leu Lys Tyr Glu Cys Arg Asp Ile
 565 570

<210> 1032
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 1032
 Gly Arg Gly Thr Ala Thr Phe Pro Thr Gly His Glu Phe Val Gly Pro
 1 5 10 15
 Cys Leu Gly Arg Ala Glu Ala Phe Trp Arg Ser Lys Met Gly Arg Lys
 20 25 30
 Asp Ala Ala Thr Ile Lys Leu Pro Val Asp Gln Tyr Arg Lys Gln Ile
 35 40 45
 Gly Lys Gln Asp Tyr Lys Lys Thr Lys Pro Ile Leu Arg Ala Thr Lys
 50 55 60
 Leu Lys Ala Glu Ala Lys Lys Thr Ala Ile Gly Ile Lys Glu Val Gly
 65 70 75 80
 Leu Val Leu Ala Ala Ile Leu Ala Leu Leu Leu Ala Phe Tyr Ala Phe
 85 90 95
 Phe Tyr Leu Arg Leu Thr Thr Asp Val Asp Pro Asp Leu Asp Gln Asp
 100 105 110
 Glu Asp

<210> 1033
 <211> 243
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (88)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (101)

1012

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1033

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Arg | Arg | Asp | Glu | Ala | Leu | Gln | Ser | Leu | Arg | Phe | Arg | Arg | Arg | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Gln | Ala | Ala | Asp | Ala | Cys | Gly | Pro | Arg | Ala | Asp | Leu | Gly | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Glu | Pro | Ala | Ala | Gly | Gly | Arg | Ala | Ala | Trp | His | Arg | Pro | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Gly | Gln | Ser | Pro | Arg | Arg | Cys | His | Ala | Gly | Val | His | Arg | Ser |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Cys | His | Leu | Cys | Arg | Leu | Gly | Ala | Ala | Glu | Arg | Phe | Arg | Gly | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Leu | Leu | Ala | Ser | Arg | Xaa | Leu | Leu | Arg | Pro | Pro | Leu | His | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Leu | Ala | Xaa | Ala | Leu | Val | Asn | Leu | Leu | Leu | Ser | Val | Ala | Cys |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Gly | Leu | Leu | Leu | Ala | Val | Ser | Leu | Thr | Val | Ala | Asn | Gly | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Leu | Ile | Ala | Asp | Cys | His | Pro | Gly | Leu | Leu | Asp | Pro | Leu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Asp | Glu | Gly | Pro | Gly | His | Thr | Asp | Cys | Pro | Phe | Asp | Pro | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ile | Tyr | Asp | Thr | Ala | Leu | Ala | Leu | Trp | Ile | Pro | Ser | Leu | Leu | Met |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Gly | Glu | Ala | Ala | Leu | Ser | Gly | Tyr | Cys | Cys | Val | Ala | Ala | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Arg | Gly | Val | Gly | Pro | Cys | Arg | Lys | Asp | Gly | Leu | Gln | Gly | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Glu | Met | Thr | Glu | Leu | Glu | Ser | Pro | Lys | Cys | Lys | Arg | Gln | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Glu | Gln | Leu | Leu | Asp | Gln | Asn | Gln | Glu | Ile | Arg | Ala | Ser | Gln | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

Ser Trp Val

1013

<210> 1034

<211> 173

<212> PRT

<213> Homo sapiens

<400> 1034

Tyr Thr Trp His Ser Glu Lys Met Asp Leu Lys Asp Lys Asn Gly Gly
 1 5 10 15

Pro Gly Arg Cys Asn Ser His Arg Leu Lys Val Ser Ser Gly Leu Cys
 20 25 30

Lys Thr His Glu Ile Gly Phe Asp Pro Leu Ala Leu Lys Cys Pro Leu
 35 40 45

Arg Ser Arg Thr Ala Pro Trp Trp Pro Leu Asp Arg Val Ser Phe Asp
 50 55 60

Leu His His Leu Val Ile Gly Asn Phe Phe Val Gly Asn Arg Lys Ile
 65 70 75 80

Phe Leu Asp Tyr Leu Val Tyr Gly Phe Ala His Asn Asn Arg Trp Lys
 85 90 95

Leu Leu Val Gln Ser Trp Ser Asp Gly Cys Val His Arg Thr Phe Gly
 100 105 110

Leu Val Lys Ser Phe Ser Lys Ala Ser Phe Cys Ile Phe Ile Thr Lys
 115 120 125

Gln Arg Lys Ser Ser Glu Asp Leu Ala Leu Lys Gln Ile Cys Ala Asn
 130 135 140

Thr Ala Arg Val Ile Leu Lys Leu Lys His Phe His Phe Val Ser Tyr
 145 150 155 160

Met Cys Thr Phe Leu Phe Thr Cys Glu Asn Gly His Leu
 165 170

<210> 1035

<211> 241

<212> PRT

<213> Homo sapiens

<400> 1035

Ser Phe Ser Glu Met Ala Gly Val Ser Ala Cys Ile Lys Tyr Ser Met
 1 5 10 15

1014

Phe Thr Phe Asn Phe Leu Phe Trp Leu Cys Gly Ile Leu Ile Leu Ala
 20 25 30
 Leu Ala Ile Trp Val Arg Val Ser Asn Asp Ser Gln Ala Ile Phe Gly
 35 40 45
 Ser Glu Asp Val Gly Ser Ser Ser Tyr Val Ala Val Asp Ile Leu Ile
 50 55 60
 Ala Val Gly Ala Ile Ile Met Ile Leu Gly Phe Leu Gly Cys Cys Gly
 65 70 75 80
 Ala Ile Lys Glu Ser Arg Cys Met Leu Leu Leu Phe Phe Ile Gly Leu
 85 90 95
 Leu Leu Ile Leu Leu Leu Gln Val Ala Thr Gly Ile Leu Gly Ala Val
 100 105 110
 Phe Lys Ser Lys Ser Asp Arg Ile Val Asn Glu Thr Leu Tyr Glu Asn
 115 120 125
 Thr Lys Leu Leu Ser Ala Thr Gly Glu Ser Glu Lys Gln Phe Gln Glu
 130 135 140
 Ala Ile Ile Val Phe Gln Glu Glu Phe Lys Cys Cys Gly Leu Val Asn
 145 150 155 160
 Gly Ala Ala Asp Trp Gly Asn Asn Phe Gln His Tyr Pro Glu Leu Cys
 165 170 175
 Ala Cys Leu Asp Lys Gln Arg Pro Cys Gln Ser Tyr Asn Gly Lys Gln
 180 185 190
 Val Tyr Lys Glu Thr Cys Ile Ser Phe Ile Lys Asp Phe Leu Ala Lys
 195 200 205
 Asn Leu Ile Ile Val Ile Gly Ile Ser Phe Gly Leu Ala Val Ile Glu
 210 215 220
 Ile Leu Gly Leu Val Phe Ser Met Val Leu Tyr Cys Gln Ile Gly Asn
 225 230 235 240
 Lys

<210> 1036

<211> 335

<212> PRT

1015

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1036

Pro Thr Xaa Gly Arg Ala Glu Glu Ala Lys Met Ala Ala Ala Ala Ala
 1 5 10 15

Ser Leu Arg Gly Val Val Leu Gly Pro Arg Gly Ala Gly Leu Pro Gly
 20 25 30

Ala Arg Ala Arg Gly Leu Leu Cys Ser Ala Arg Pro Gly Gln Leu Pro
 35 40 45

Leu Arg Thr Pro Gln Ala Val Ala Leu Ser Ser Lys Ser Gly Leu Ser
 50 55 60

Arg Gly Arg Lys Val Met Leu Ser Ala Leu Gly Met Leu Ala Ala Gly
 65 70 75 80

Gly Ala Gly Leu Ala Val Ala Leu His Ser Ala Val Ser Ala Ser Asp
 85 90 95

Leu Glu Leu His Pro Pro Ser Tyr Pro Trp Ser His Arg Gly Leu Leu
 100 105 110

Ser Ser Leu Asp His Thr Ser Ile Arg Arg Gly Phe Gln Val Tyr Lys
 115 120 125

Gln Val Cys Ala Ser Cys His Ser Met Asp Phe Val Ala Tyr Arg His
 130 135 140

Leu Val Gly Val Cys Tyr Thr Glu Asp Glu Ala Lys Glu Leu Ala Ala
 145 150 155 160

Glu Val Glu Val Gln Asp Gly Pro Asn Glu Asp Gly Glu Met Phe Met
 165 170 175

Arg Pro Gly Lys Leu Phe Asp Tyr Phe Pro Lys Pro Tyr Pro Asn Ser
 180 185 190

Glu Ala Ala Arg Ala Ala Asn Asn Gly Ala Leu Pro Pro Asp Leu Ser
 195 200 205

Tyr Ile Val Arg Ala Arg His Gly Gly Glu Asp Tyr Val Phe Ser Leu
 210 215 220

Leu Thr Gly Tyr Cys Glu Pro Pro Thr Gly Val Ser Leu Arg Glu Gly

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 225 | 230 | | | | | | | 235 | | | | | | | 240 | |
| Leu | Tyr | Phe | Asn | Pro | Tyr | Phe | Pro | Gly | Gln | Ala | Ile | Ala | Met | Ala | Pro | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Pro | Ile | Tyr | Thr | Asp | Val | Leu | Glu | Phe | Asp | Asp | Gly | Thr | Pro | Ala | Thr | |
| | | | | 260 | | | | | 265 | | | | | 270 | | |
| Met | Ser | Gln | Ile | Ala | Lys | Asp | Val | Cys | Thr | Phe | Leu | Arg | Trp | Ala | Ser | |
| | | | | 275 | | | | | 280 | | | | | 285 | | |
| Glu | Pro | Glu | His | Asp | His | Arg | Lys | Arg | Met | Gly | Leu | Lys | Met | Leu | Met | |
| | | | | 290 | | | | | 295 | | | | | 300 | | |
| Met | Met | Ala | Leu | Leu | Val | Pro | Leu | Val | Tyr | Thr | Ile | Lys | Arg | His | Lys | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Trp | Ser | Val | Leu | Lys | Ser | Arg | Lys | Leu | Ala | Tyr | Arg | Pro | Pro | Lys | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |

```
<210> 1037
<211> 511
<212> PRT
<213> Homo sapiens
```

```

<400> 1037
His Gln Leu Gln Gly Pro Leu Pro Leu Arg Ala Leu Pro Trp His Ser
 1              5              10              15

Ser Arg Ser Arg Val Thr Cys Thr Arg Cys Phe Ser Trp Met His Pro
          20              25              30

Ser Pro Met His Pro Leu Arg Ala Gly Ser Lys Ser Gln Gly Ser Arg
          35              40              45

Ser Pro Ala Pro Ser Pro Met Arg Ala Ala Asn Arg Ser His Ser Ala
          50              55              60

Gly Arg Thr Pro Gly Arg Thr Pro Gly Lys Ser Ser Ser Lys Val Gln
65              70              75              80

Thr Thr Pro Ser Lys Pro Gly Gly Asp Arg Tyr Ile Pro His Arg Ser
          85              90              95

Ala Ala Gln Met Glu Val Ala Ser Phe Leu Leu Ser Lys Glu Asn Gln
          100              105              110

Pro Glu Asn Ser Gln Thr Pro Thr Lys Lys Glu His Gln Lys Ala Trp
          115              120              125

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1017

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Asn | Leu | Asn | Gly | Phe | Asp | Val | Glu | Glu | Ala | Lys | Ile | Leu | Arg | 130 | 135 | 140 |
| Leu | Ser | Gly | Lys | Pro | Gln | Asn | Ala | Pro | Glu | Gly | Tyr | Gln | Asn | Arg | Leu | 145 | 150 | 155 |
| Lys | Val | Leu | Tyr | Ser | Gln | Lys | Ala | Thr | Pro | Gly | Ser | Ser | Arg | Lys | Thr | 165 | 170 | 175 |
| Cys | Arg | Tyr | Ile | Pro | Ser | Leu | Pro | Asp | Arg | Ile | Leu | Asp | Ala | Pro | Glu | 180 | 185 | 190 |
| Ile | Arg | Asn | Asp | Tyr | Tyr | Leu | Asn | Leu | Val | Asp | Trp | Ser | Ser | Gly | Asn | 195 | 200 | 205 |
| Val | Leu | Ala | Val | Ala | Leu | Asp | Asn | Ser | Val | Tyr | Leu | Trp | Ser | Ala | Ser | 210 | 215 | 220 |
| Ser | Gly | Asp | Ile | Leu | Gln | Leu | Leu | Gln | Met | Glu | Gln | Pro | Gly | Glu | Tyr | 225 | 230 | 235 |
| Ile | Ser | Ser | Val | Ala | Trp | Ile | Lys | Glu | Gly | Asn | Tyr | Leu | Ala | Val | Gly | 245 | 250 | 255 |
| Thr | Ser | Ser | Ala | Glu | Val | Gln | Leu | Trp | Asp | Val | Gln | Gln | Gln | Lys | Arg | 260 | 265 | 270 |
| Leu | Arg | Asn | Met | Thr | Ser | His | Ser | Ala | Arg | Val | Gly | Ser | Leu | Ser | Trp | 275 | 280 | 285 |
| Asn | Ser | Tyr | Ile | Leu | Ser | Ser | Gly | Ser | Arg | Ser | Gly | His | Ile | His | His | 290 | 295 | 300 |
| His | Asp | Val | Arg | Val | Ala | Glu | His | His | Val | Ala | Thr | Leu | Ser | Gly | His | 305 | 310 | 315 |
| Ser | Gln | Glu | Val | Cys | Gly | Leu | Arg | Trp | Ala | Pro | Asp | Gly | Arg | His | Leu | 325 | 330 | 335 |
| Ala | Ser | Gly | Gly | Asn | Asp | Asn | Leu | Val | Asn | Val | Trp | Pro | Ser | Ala | Pro | 340 | 345 | 350 |
| Gly | Glu | Gly | Gly | Trp | Val | Pro | Leu | Gln | Thr | Phe | Thr | Gln | His | Gln | Gly | 355 | 360 | 365 |
| Ala | Val | Lys | Ala | Val | Ala | Trp | Cys | Pro | Trp | Gln | Ser | Asn | Val | Leu | Ala | 370 | 375 | 380 |
| Thr | Gly | Gly | Gly | Thr | Ser | Asp | Arg | His | Ile | Arg | Ile | Trp | Asn | Val | Cys | 385 | 390 | 395 |

1018

Ser Gly Ala Cys Leu Ser Ala Val Asp Ala His Ser Gln Val Cys Ser
 405 410 415
 Ile Leu Trp Ser Pro His Tyr Lys Glu Leu Ile Ser Gly His Gly Phe
 420 425 430
 Ala Gln Asn Gln Leu Val Ile Trp Lys Tyr Pro Thr Met Ala Lys Val
 435 440 445
 Ala Glu Leu Lys Gly His Thr Ser Arg Val Leu Ser Leu Thr Met Ser
 450 455 460
 Pro Asp Gly Ala Thr Val Ala Ser Ala Ala Asp Glu Thr Leu Arg
 465 470 475 480
 Leu Trp Arg Cys Phe Glu Leu Asp Pro Ala Arg Arg Arg Glu Arg Glu
 485 490 495
 Lys Ala Ser Ala Ala Lys Ser Ser Leu Ile His Gln Gly Ile Arg
 500 505 510

<210> 1038

<211> 209

<212> PRT

<213> Homo sapiens

<400> 1038

His Glu Pro Pro Ser Ala Ser Ser Val Ala Gly Asp Leu Gly Arg Gly
 1 5 10 15
 Thr Arg Thr Glu Val Glu Ala Arg Ala Arg Pro Gly Ala Glu Ser
 20 25 30
 Ala Pro Ala Ala Ala Met Pro Asp Ser Trp Asp Lys Asp Val Tyr Pro
 35 40 45
 Glu Pro Pro Arg Arg Thr Pro Val Gln Pro Asn Pro Ile Val Tyr Met
 50 55 60
 Met Lys Ala Phe Asp Leu Ile Val Asp Arg Pro Val Thr Leu Val Arg
 65 70 75 80
 Glu Phe Ile Glu Arg Gln His Ala Lys Asn Arg Tyr Tyr Tyr Tyr His
 85 90 95
 Arg Gln Tyr Arg Arg Val Pro Asp Ile Thr Glu Cys Lys Glu Glu Asp
 100 105 110

1019

Ile Met Cys Met Tyr Glu Ala Glu Met Gln Trp Lys Arg Asp Tyr Lys
 115 120 125
 Val Asp Gln Glu Ile Ile Asn Ile Met Gln Asp Arg Leu Lys Ala Cys
 130 135 140
 Gln Gln Arg Glu Gly Gln Asn Tyr Gln Gln Asn Cys Ile Lys Glu Val
 145 150 155 160
 Glu Gln Phe Thr Gln Val Ala Lys Ala Tyr Gln Asp Arg Tyr Gln Asp
 165 170 175
 Leu Gly Ala Tyr Ser Ser Ala Arg Lys Cys Leu Ala Lys Gln Arg Gln
 180 185 190
 Arg Met Leu Gln Glu Arg Lys Ala Ala Lys Glu Ala Ala Ala Ala Thr
 195 200 205

Ser

<210> 1039

<211> 219

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1039

Leu Ala Ala Pro Asp Leu Ser Lys Pro Arg Gly Tyr His Trp Asp Thr
 1 5 10 15
 Ser Asp Trp Met Pro Ser Val Pro Leu Pro Asp Ile Gln Glu Phe Pro
 20 25 30
 Asn Tyr Glu Val Ile Asp Glu Gln Thr Pro Leu Tyr Ser Ala Asp Pro
 35 40 45
 Asn Ala Ile Asp Thr Asp Tyr Tyr Pro Gly Gly Tyr Asp Ile Glu Ser
 50 55 60
 Asp Phe Pro Pro Pro Pro Glu Asp Phe Pro Ala Ala Asp Glu Leu Pro
 65 70 75 80
 Pro Leu Pro Pro Glu Phe Ser Asn Gln Phe Glu Ser Ile His Pro Pro
 85 90 95

1020

Arg Asp Met Pro Ala Ala Gly Ser Leu Gly Ser Ser Ser Arg Asn Arg
 100 105 110
 Gln Arg Phe Asn Leu Asn Gln Tyr Leu Pro Asn Phe Tyr Pro Leu Asp
 115 120 125
 Met Ser Glu Pro Gln Thr Lys Gly Thr Gly Glu Asn Ser Thr Cys Arg
 130 135 140
 Glu Pro His Ala Pro Tyr Pro Pro Xaa Tyr Gln Arg His Phe Glu Ala
 145 150 155 160
 Pro Ala Val Glu Ser Met Pro Met Ser Val Tyr Ala Ser Thr Ala Ser
 165 170 175
 Cys Ser Asp Val Ser Ala Cys Cys Glu Val Glu Ser Glu Val Met Met
 180 185 190
 Ser Asp Tyr Glu Ser Gly Asp Asp Gly His Phe Glu Glu Val Thr Ile
 195 200 205
 Pro Pro Leu Asp Ser Gln Gln His Thr Glu Val
 210 215

<210> 1040

<211> 178

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1040

Phe Asp Leu Pro Tyr Arg Ala Glu Phe Gly Xaa Pro Gly Pro Pro Leu
 1 5 10 15
 Ser Ala Ala Cys Ser Trp Lys Phe Arg Leu Gly Cys Leu Leu Gly Ala
 20 25 30
 Met Glu Ser Asp Phe Tyr Leu Arg Tyr Tyr Val Gly His Lys Gly Lys
 35 40 45
 Phe Gly His Glu Phe Leu Glu Phe Glu Phe Arg Pro Asp Gly Lys Leu
 50 55 60
 Arg Tyr Ala Asn Asn Ser Asn Tyr Lys Asn Asp Val Met Ile Arg Lys

1021

```
<210> 1041
<211> 121
<212> PRT
<213> Homo sapiens
```

```

<400> 1041
Leu Val Pro Asn Ser Ala Arg Ala Gly Ala Ser Tyr Ala Ala Ala Ala
  1                      5                      10                      15
Val Thr Met Ala His Tyr Lys Ala Ala Asp Ser Lys Arg Glu Gln Phe
                20                      25                      30
Arg Arg Tyr Leu Glu Lys Ser Gly Val Leu Asp Thr Leu Thr Lys Val
                35                      40                      45
Leu Val Ala Leu Tyr Glu Glu Pro Glu Lys Pro Asn Ser Ala Leu Asp
  50                      55                      60
Phe Leu Lys His His Leu Gly Ala Ala Thr Pro Glu Asn Pro Glu Ile
  65                      70                      75                      80
Glu Leu Leu Arg Leu Glu Leu Ala Glu Met Lys Glu Lys Tyr Glu Ala
                85                      90                      95
Ile Val Glu Glu Asn Lys Lys Leu Lys Ala Lys Leu Ala Gln Tyr Glu
                100                      105                      110

```

1022

Pro Pro Gln Glu Glu Lys Arg Ala Glu
 115 120

<210> 1042

<211> 253

<212> PRT

<213> Homo sapiens

<400> 1042

Val Asp Pro Arg Val Arg Pro Arg Ser Val Asn Gly Glu Leu Gln Lys
 1 5 10 15

Ala Ile Asp Leu Phe Thr Asp Ala Ile Lys Leu Asn Pro Arg Leu Ala
 20 25 30

Ile Leu Tyr Ala Lys Arg Ala Ser Val Phe Val Lys Leu Gln Lys Pro
 35 40 45

Asn Ala Ala Ile Arg Asp Cys Asp Arg Ala Ile Glu Ile Asn Pro Asp
 50 55 60

Ser Ala Gln Pro Tyr Lys Trp Arg Gly Lys Ala His Arg Leu Leu Gly
 65 70 75 80

His Trp Glu Glu Ala Ala His Asp Leu Ala Leu Ala Cys Lys Leu Asp
 85 90 95

Tyr Asp Glu Asp Ala Ser Ala Met Leu Lys Glu Val Gln Pro Arg Ala
 100 105 110

Gln Lys Ile Ala Glu His Arg Arg Lys Tyr Glu Arg Lys Arg Glu Glu
 115 120 125

Arg Glu Ile Lys Glu Arg Ile Glu Arg Val Lys Lys Ala Arg Glu Glu
 130 135 140

His Glu Arg Ala Gln Arg Glu Glu Glu Ala Arg Arg Gln Ser Gly Ala
 145 150 155 160

Gln Tyr Gly Ser Phe Pro Gly Gly Phe Pro Gly Gly Met Pro Gly Asn
 165 170 175

Phe Pro Gly Gly Met Pro Gly Met Gly Gly Gly Met Pro Gly Met Ala
 180 185 190

Gly Met Pro Gly Leu Asn Glu Ile Leu Ser Asp Pro Glu Val Leu Ala
 195 200 205

1023

Ala Met Gln Asp Pro Glu Val Met Val Ala Phe Gln Asp Val Ala Gln
 210 215 220

Asn Pro Ala Asn Met Ser Lys Tyr Gln Ser Asn Pro Lys Val Met Asn
 225 230 235 240

Leu Ile Ser Lys Leu Ser Ala Lys Phe Gly Gly Gln Ala
 245 250

<210> 1043

<211> 343

<212> PRT

<213> Homo sapiens

<400> 1043

Met Lys Thr Cys Gln Glu Glu Lys Leu Met Gly His Leu Gly Val Val
 1 5 10 15

Leu Tyr Glu Tyr Leu Gly Glu Glu Tyr Pro Glu Val Leu Gly Ser Ile
 20 25 30

Leu Gly Ala Leu Lys Ala Ile Val Asn Val Ile Gly Met His Lys Met
 35 40 45

Thr Pro Pro Ile Lys Asp Leu Leu Pro Arg Leu Thr Pro Ile Leu Lys
 50 55 60

Asn Arg His Glu Lys Val Gln Glu Asn Cys Ile Asp Leu Val Gly Arg
 65 70 75 80

Ile Ala Asp Arg Gly Ala Glu Tyr Val Ser Ala Arg Glu Trp Met Arg
 85 90 95

Ile Cys Phe Glu Leu Leu Glu Leu Leu Lys Ala His Lys Lys Ala Ile
 100 105 110

Arg Arg Ala Thr Val Asn Thr Phe Gly Tyr Ile Ala Lys Ala Ile Gly
 115 120 125

Pro His Asp Val Leu Ala Thr Leu Leu Asn Asn Leu Lys Val Gln Glu
 130 135 140

Arg Gln Asn Arg Val Cys Thr Thr Val Ala Ile Ala Ile Val Ala Glu
 145 150 155 160

Thr Cys Ser Pro Phe Thr Val Leu Pro Ala Leu Met Asn Glu Tyr Arg
 165 170 175

Val Pro Glu Leu Asn Val Gln Asn Gly Val Leu Lys Ser Leu Ser Phe

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 180 | | | | 185 | | | | 190 | | | |
| Leu | Phe | Glu | Tyr | Ile | Gly | Glu | Met | Gly | Lys | Asp | Tyr | Ile | Tyr | Ala | Val |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Thr | Pro | Leu | Leu | Glu | Asp | Ala | Leu | Met | Asp | Arg | Asp | Leu | Val | His | Arg |
| | | 210 | | | | 215 | | | | 220 | | | | | |
| Gln | Thr | Ala | Ser | Ala | Val | Val | Gln | His | Met | Ser | Leu | Gly | Val | Tyr | Gly |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | |
| Phe | Gly | Cys | Glu | Asp | Ser | Leu | Asn | His | Leu | Leu | Asn | Tyr | Val | Trp | Pro |
| | | | | 245 | | | | 250 | | | | | | 255 | |
| Asn | Val | Phe | Glu | Thr | Ser | Pro | His | Val | Ile | Gln | Ala | Val | Met | Gly | Ala |
| | | 260 | | | | | | 265 | | | | 270 | | | |
| Leu | Glu | Gly | Leu | Arg | Val | Ala | Ile | Gly | Pro | Cys | Arg | Met | Leu | Gln | Tyr |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Cys | Leu | Gln | Gly | Leu | Phe | His | Pro | Ala | Arg | Lys | Val | Arg | Asp | Val | Tyr |
| 290 | | | | | | 295 | | | | 300 | | | | | |
| Trp | Lys | Ile | Tyr | Asn | Ser | Ile | Tyr | Ile | Gly | Ser | Gln | Asp | Ala | Leu | Ile |
| 305 | | | | 310 | | | | | | 315 | | | | 320 | |
| Ala | His | Tyr | Pro | Arg | Ile | Tyr | Asn | Asp | Asp | Lys | Asn | Thr | Tyr | Ile | Arg |
| | | | | 325 | | | | 330 | | | | | | 335 | |
| Tyr | Glu | Leu | Asp | Tyr | Ile | Leu | | | | | | | | | |
| | | 340 | | | | | | | | | | | | | |

Arg Gly Arg Xaa Asn Leu Glu Ser Thr Arg Val Arg Glu Leu Pro Gly
20 25 30

1025

Gly Ala Met Ser Cys Ile Asn Leu Pro Thr Val Leu Pro Gly Ser Pro
 35 40 45
 Ser Lys Thr Arg Gly Gln Ile Gln Val Ile Leu Gly Pro Met Phe Ser
 50 55 60
 Gly Lys Ser Thr Glu Leu Met Arg Arg Val Arg Arg Phe Gln Ile Ala
 65 70 75 80
 Gln Tyr Lys Cys Leu Val Ile Lys Tyr Ala Lys Asp Thr Arg Tyr Ser
 85 90 95
 Ser Ser Phe Cys Thr His Asp Arg Asn Thr Met Glu Ala Leu Pro Ala
 100 105 110
 Cys Leu Leu Arg Asp Val Ala Gln Glu Ala Leu Gly Val Ala Val Ile
 115 120 125
 Gly Ile Asp Glu Gly Gln Phe Phe Pro Asp Ile Val Glu Phe Cys Glu
 130 135 140
 Ala Met Ala Asn Ala Gly Lys Thr Val Ile Val Ala Ala Leu Asp Gly
 145 150 155 160
 Thr Phe Gln Arg Lys Pro Phe Gly Ala Ile Leu Asn Leu Val Pro Leu
 165 170 175
 Ala Glu Ser Val Val Lys Leu Thr Ala Val Cys Met Glu Cys Phe Arg
 180 185 190
 Glu Ala Ala Tyr Thr Lys Arg Leu Gly Thr Glu Lys Glu Val Glu Val
 195 200 205
 Ile Gly Gly Ala Asp Lys Tyr His Ser Val Cys Arg Leu Cys Tyr Phe
 210 215 220
 Lys Lys Ala Ser Gly Gln Pro Ala Gly Pro Asp Asn Lys Glu Asn Cys
 225 230 235 240
 Pro Val Pro Gly Lys Pro Gly Glu Ala Val Ala Ala Arg Lys Leu Phe
 245 250 255
 Ala Pro Gln Gln Ile Leu Gln Cys Ser Pro Ala Asn
 260 265

<210> 1045

<211> 139

<212> PRT

<213> Homo sapiens

1026

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1045

Pro Gly Gln Ser Arg Trp Gln Gly Pro Pro Leu Pro Leu Cys Gln Ala
 1 5 10 15

Gly Ser Ala Lys Ser Gly Glu Pro Gly Ala Gly Gly Lys Ala Gly Asp
 20 25 30

Ser Pro Ala Leu Pro Pro Pro Pro Leu Gly Ala Gln Gln Leu Leu Arg
 35 40 45

Lys Val Trp His Pro Trp Arg Gly Gly Ala Pro Gly Trp Ala Gly Ser
 50 55 60

Arg Trp Pro Gly Ala Trp Arg Cys Ala Ala Gly Ala Cys Met Ala Pro
 65 70 75 80

Arg Gly Thr Gln Ala Glu Glu Ser Pro Phe Val Gly Asn Pro Gly Asn
 85 90 95

Ile Thr Gly Ala Arg Gly Leu Thr Gly Thr Leu Arg Cys Gln Leu Gln
 100 105 110

Val Gln Gly Glu Pro Pro Glu Val His Trp Leu Arg Asp Gly Gln Xaa
 115 120 125

Leu Glu Leu Ala Asp Ser Thr Gln Thr Gln Val
 130 135

<210> 1046

<211> 416

<212> PRT

<213> Homo sapiens

<400> 1046

Ser Pro Ser Glu Arg Leu Gln Arg Gly Arg Glu Glu Gln Pro Ala Gly
 1 5 10 15

Gly Gly Gly Glu Ser Val Ser Ser Trp Glu Glu Gln Asn Arg Gly Gly
 20 25 30

Ala Pro Ala Gly Ala Gly Gly Gly Pro Thr Met Ala Ile Arg Lys Lys
 35 40 45

1027

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | Lys | Ser | Pro | Pro | Val | Leu | Ser | His | Glu | Phe | Val | Leu | Gln | Asn | 50 | 55 | 60 | |
| His | Ala | Asp | Ile | Val | Ser | Cys | Val | Ala | Met | Val | Phe | Leu | Leu | Gly | Leu | 65 | 70 | 75 | 80 |
| Met | Phe | Glu | Ile | Thr | Ala | Lys | Ala | Ser | Ile | Ile | Phe | Val | Thr | Leu | Gln | 85 | 90 | 95 | |
| Tyr | Asn | Val | Thr | Leu | Pro | Ala | Thr | Glu | Glu | Gln | Ala | Thr | Glu | Ser | Val | 100 | 105 | 110 | |
| Ser | Leu | Tyr | Tyr | Tyr | Gly | Ile | Lys | Asp | Leu | Ala | Thr | Val | Phe | Phe | Tyr | 115 | 120 | 125 | |
| Met | Leu | Val | Ala | Ile | Ile | Ile | His | Ala | Val | Ile | Gln | Glu | Tyr | Met | Leu | 130 | 135 | 140 | |
| Asp | Lys | Ile | Asn | Arg | Arg | Met | His | Phe | Ser | Lys | Thr | Lys | His | Ser | Lys | 145 | 150 | 155 | 160 |
| Phe | Asn | Glu | Ser | Gly | Gln | Leu | Ser | Ala | Phe | Tyr | Leu | Phe | Ala | Cys | Val | 165 | 170 | 175 | |
| Trp | Gly | Thr | Phe | Ile | Leu | Ile | Ser | Glu | Asn | Tyr | Ile | Ser | Asp | Pro | Thr | 180 | 185 | 190 | |
| Ile | Leu | Trp | Arg | Ala | Tyr | Pro | His | Asn | Leu | Met | Thr | Phe | Gln | Met | Lys | 195 | 200 | 205 | |
| Phe | Phe | Tyr | Ile | Ser | Gln | Leu | Ala | Tyr | Trp | Leu | His | Ala | Phe | Pro | Glu | 210 | 215 | 220 | |
| Leu | Tyr | Phe | Gln | Lys | Thr | Lys | Lys | Glu | Asp | Ile | Pro | Arg | Gln | Leu | Val | 225 | 230 | 235 | 240 |
| Tyr | Ile | Gly | Leu | Tyr | Leu | Phe | His | Ile | Ala | Gly | Ala | Tyr | Leu | Leu | Asn | 245 | 250 | 255 | |
| Leu | Asn | His | Leu | Gly | Leu | Val | Leu | Leu | Val | Leu | His | Tyr | Phe | Val | Glu | 260 | 265 | 270 | |
| Phe | Leu | Phe | His | Ile | Ser | Arg | Leu | Phe | Tyr | Phe | Ser | Asn | Glu | Lys | Tyr | 275 | 280 | 285 | |
| Gln | Lys | Gly | Phe | Ser | Leu | Trp | Ala | Val | Leu | Phe | Val | Leu | Gly | Arg | Leu | 290 | 295 | 300 | |
| Leu | Thr | Leu | Ile | Leu | Ser | Val | Leu | Thr | Val | Gly | Phe | Gly | Leu | Ala | Arg | 305 | 310 | 315 | 320 |

1028

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Asn | Gln | Lys | Leu | Asp | Phe | Ser | Thr | Gly | Asn | Phe | Asn | Val | Leu |
| | | | | 325 | | | | | | 330 | | | | 335 | |
| Ala | Val | Arg | Ile | Ala | Val | Leu | Ala | Ser | Ile | Cys | Val | Thr | Gln | Ala | Phe |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Met | Trp | Lys | Phe | Ile | Asn | Phe | Gln | Leu | Arg | Arg | Trp | Arg | Glu | His |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Ala | Phe | Gln | Ala | Pro | Ala | Val | Lys | Lys | Lys | Pro | Thr | Val | Thr | Lys |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Arg | Ser | Ser | Lys | Lys | Gly | Thr | Glu | Asn | Gly | Val | Asn | Gly | Thr | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Thr | Ser | Asn | Val | Ala | Asp | Ser | Pro | Arg | Asn | Lys | Lys | Glu | Lys | Ser | Ser |
| | | | | 405 | | | | | 410 | | | | | 415 | |

```
<210> 1047
<211> 466
<212> PRT
<213> Homo sapiens
```

<400> 1047

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Ser | Ser | Gly | Leu | Leu | Pro | Leu | Ser | Arg | Ser | Asn | Leu | Tyr | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Arg | Thr | Gly | Ile | Pro | Arg | Ala | Pro | Pro | Ala | Leu | Ala | Ala | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ala | Pro | Gly | Arg | Arg | Ala | Pro | Val | His | Thr | Gly | Ser | Leu | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Asn | Ser | Ser | Thr | Met | Gly | Leu | Ala | Trp | Gly | Leu | Gly | Val | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Met | His | Val | Cys | Gly | Thr | Asn | Arg | Ile | Pro | Glu | Ser | Gly | Gly | Asp |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Asn | Ser | Val | Phe | Asp | Ile | Phe | Glu | Leu | Thr | Gly | Ala | Ala | Arg | Lys | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Gly | Arg | Arg | Leu | Val | Lys | Gly | Pro | Asp | Pro | Ser | Ser | Pro | Ala | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Arg | Ile | Glu | Asp | Ala | Asn | Leu | Ile | Pro | Pro | Val | Pro | Asp | Asp | Lys | Phe |

1029

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Gln Asp Leu Val Asp Ala Val Arg Ala Glu Lys Gly Phe Leu Leu Leu | | |
| 130 | 135 | 140 |
| Ala Ser Leu Arg Gln Met Lys Lys Thr Arg Gly Thr Leu Leu Ala Leu | | |
| 145 | 150 | 155 |
| Glu Arg Lys Asp His Ser Gly Gln Val Phe Ser Val Val Ser Asn Gly | | |
| 165 | 170 | 175 |
| Lys Ala Gly Thr Leu Asp Leu Ser Leu Thr Val Gln Gly Lys Gln His | | |
| 180 | 185 | 190 |
| Val Val Ser Val Glu Glu Ala Leu Leu Ala Thr Gly Gln Trp Lys Ser | | |
| 195 | 200 | 205 |
| Ile Thr Leu Phe Val Gln Glu Asp Arg Ala Gln Leu Tyr Ile Asp Cys | | |
| 210 | 215 | 220 |
| Glu Lys Met Glu Asn Ala Glu Leu Asp Val Pro Ile Gln Ser Val Phe | | |
| 225 | 230 | 235 |
| Thr Arg Asp Leu Ala Ser Ile Ala Arg Leu Arg Ile Ala Lys Gly Gly | | |
| 245 | 250 | 255 |
| Val Asn Asp Asn Phe Gln Gly Val Leu Gln Asn Val Arg Phe Val Phe | | |
| 260 | 265 | 270 |
| Gly Thr Thr Pro Glu Asp Ile Leu Arg Asn Lys Gly Cys Ser Ser Ser | | |
| 275 | 280 | 285 |
| Thr Ser Val Leu Leu Thr Leu Asp Asn Asn Val Val Asn Gly Ser Ser | | |
| 290 | 295 | 300 |
| Pro Ala Ile Arg Thr Asn Tyr Ile Gly His Lys Thr Lys Asp Leu Gln | | |
| 305 | 310 | 315 |
| Ala Ile Cys Gly Ile Ser Cys Asp Glu Leu Ser Ser Met Val Leu Glu | | |
| 325 | 330 | 335 |
| Leu Arg Gly Leu Arg Thr Ile Val Thr Thr Leu Gln Asp Ser Ile Arg | | |
| 340 | 345 | 350 |
| Lys Val Thr Glu Glu Asn Lys Glu Leu Ala Asn Glu Leu Arg Arg Pro | | |
| 355 | 360 | 365 |
| Pro Leu Cys Tyr His Asn Gly Val Gln Tyr Arg Asn Asn Glu Glu Trp | | |
| 370 | 375 | 380 |
| Thr Val Asp Ser Cys Thr Glu Cys His Cys Gln Asn Ser Val Thr Ile | | |

1030

[illegible]

```
<210> 1048
<211> 217
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (122)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (186)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (200)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<400> 1048
Asp Pro Arg Val Arg Gln Ser His Ile Ser Asp Thr Ser Val Val Val
  1             5             10            15
```

Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp Cys Ile Ile Ala Glu
20 25 30

Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg Ser Arg Ala Glu Ala
35 40 45

Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met Lys Ala Thr Val Ile
50 55 60

1031

Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu Glu Ile Asn Glu Leu
65 70 75 80

Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val Glu Asn Ala Lys Cys
85 90 95

Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln Ser Glu Gln Gln Gly
100 105 110

Glu Ala Ala Leu Ser Asp Ala Arg Cys Xaa Leu Ala Glu Leu Glu Gly
115 120 125

Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys Leu Ile Arg Glu Tyr
130 135 140

Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp Ile Glu Ile Ala Thr
145 150 155 160

Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg Leu Cys Glu Gly Ile
165 170 175

Gly Ala Val Asn Val Cys Val Ser Ser Xaa Arg Gly Gly Val Val Cys
180 185 190

Gly Asp Leu Cys Val Ser Gly Xaa Arg Pro Val Thr Ala Val Ser Ala
195 200 205

Ala Leu Arg Ala Thr Gly Thr Trp Arg
210 215

<210> 1049

<211> 406

<212> PRT

<213> Homo sapiens

<400> 1049

Gly Ser Ala Ala Ala Arg Tyr Leu Ser Ala Thr Trp Arg Asn Trp Ile
1 5 10 15

Ser Leu Pro Pro Ala Gly Leu Pro Ala Thr Ala Gly Leu Arg His Ser
20 25 30

Gly Ser Leu Met Ala Ala Thr Cys Glu Ile Ser Asn Ile Phe Ser Asn
35 40 45

Tyr Phe Ser Ala Met Tyr Ser Ser Glu Asp Ser Thr Leu Ala Ser Val
50 55 60

1032

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Pro | Pro | Ala | Ala | Thr | Phe | Gly | Ala | Asp | Asp | Leu | Val | Leu | Thr | Leu | Ser | |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 | |
| Asn | Pro | Gln | Met | Ser | Leu | Glu | Gly | Thr | Glu | Lys | Ala | Ser | Trp | Leu | Gly | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Glu | Gln | Pro | Gln | Phe | Trp | Ser | Lys | Thr | Gln | Val | Leu | Asp | Trp | Ile | Ser | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Tyr | Gln | Val | Glu | Lys | Asn | Lys | Tyr | Asp | Ala | Ser | Ala | Ile | Asp | Phe | Ser | |
| | | 115 | | | | | 120 | | | | | | 125 | | | |
| Arg | Cys | Asp | Met | Asp | Gly | Ala | Thr | Leu | Cys | Asn | Cys | Ala | Leu | Glu | Glu | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Leu | Arg | Leu | Val | Phe | Gly | Pro | Leu | Gly | Asp | Gln | Leu | His | Ala | Gln | Leu | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Arg | Asp | Leu | Thr | Ser | Ser | Ser | Ser | Asp | Glu | Leu | Ser | Trp | Ile | Ile | Glu | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Leu | Leu | Glu | Lys | Asp | Gly | Met | Ala | Phe | Gln | Glu | Ala | Leu | Asp | Pro | Gly | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Pro | Phe | Asp | Gln | Gly | Ser | Pro | Phe | Ala | Gln | Glu | Leu | Leu | Asp | Asp | Gly | |
| | | 195 | | | | | 200 | | | | | | 205 | | | |
| Gln | Gln | Ala | Ser | Pro | Tyr | His | Pro | Gly | Ser | Cys | Gly | Ala | Gly | Ala | Pro | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Ser | Pro | Gly | Ser | Ser | Asp | Val | Ser | Thr | Ala | Gly | Thr | Gly | Ala | Ser | Arg | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Ser | Ser | His | Ser | Ser | Asp | Ser | Gly | Gly | Ser | Asp | Val | Asp | Leu | Asp | Pro | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Thr | Asp | Gly | Lys | Leu | Phe | Pro | Ser | Asp | Gly | Phe | Arg | Asp | Cys | Lys | Lys | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Gly | Asp | Pro | Lys | His | Gly | Lys | Arg | Lys | Arg | Gly | Arg | Pro | Arg | Lys | Leu | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Ser | Lys | Glu | Tyr | Trp | Asp | Cys | Leu | Glu | Gly | Lys | Lys | Ser | Lys | His | Ala | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Pro | Arg | Gly | Thr | His | Leu | Trp | Glu | Phe | Ile | Arg | Asp | Ile | Leu | Ile | His | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Pro | Glu | Leu | Asn | Glu | Gly | Leu | Met | Lys | Trp | Glu | Asn | Arg | His | Glu | Gly | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |

1033

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Val | Phe | Lys | Phe | Leu | Arg | Ser | Glu | Ala | Val | Ala | Gln | Leu | Trp | Gly | Gln | |
| | | | 340 | | | 345 | | | | | | 350 | | | | |
| Lys | Lys | Lys | Asn | Ser | Asn | Met | Thr | Tyr | Glu | Lys | Leu | Ser | Arg | Ala | Met | |
| | | | 355 | | | 360 | | | | | | 365 | | | | |
| Arg | Tyr | Tyr | Tyr | Lys | Arg | Glu | Ile | Leu | Glu | Arg | Val | Asp | Gly | Arg | Arg | |
| | | | 370 | | | 375 | | | | | | 380 | | | | |
| Leu | Val | Tyr | Lys | Phe | Gly | Lys | Asn | Ser | Ser | Gly | Trp | Lys | Glu | Glu | Glu | |
| 385 | | | | | 390 | | | | | | 395 | | | 400 | | |
| Val | Leu | Gln | Ser | Arg | Asn | | | | | | | | | | | |
| 405 | | | | | | | | | | | | | | | | |

<210> 1050

<211> 251

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1050

Arg Pro Ala Leu Asp Thr Cys Cys Pro Phe Pro Ala Arg Ile Leu Gly
1 5 10 15

Ser Phe Pro Leu Ser Gln His Leu Gly Pro Ala Phe Asp Thr Thr Pro
20 25 30

Arg Leu Pro Thr Leu Arg Ala Trp Ser Leu Pro Gln Gly Pro Leu Ser
35 40 45

Trp Ala Met Ala Xaa Lys Gly Val Leu Gly Pro Gly Gln Leu Gly Ala
50 55 60

Val Ala Ile Leu Leu Tyr Leu Gly Leu Leu Arg Ser Gly Thr Gly Ala
65 70 75 80

Glu Gly Ala Glu Ala Xaa Cys Gly Val Ala Pro Gln Ala Arg Ile Thr
85 90 95

1034

Gly Gly Ser Ser Ala Val Ala Gly Gln Trp Pro Trp Gln Val Ser Ile
 100 105 110
 Thr Tyr Glu Gly Val His Val Cys Gly Gly Ser Leu Val Ser Glu Gln
 115 120 125
 Trp Val Leu Ser Ala Ala His Cys Phe Pro Ser Glu His His Lys Glu
 130 135 140
 Ala Tyr Glu Val Lys Leu Gly Ala His Gln Leu Asp Ser Tyr Ser Glu
 145 150 155 160
 Asp Ala Lys Val Ser Thr Leu Lys Asp Ile Ile Pro His Pro Ser Tyr
 165 170 175
 Leu Gln Glu Gly Ser Gln Gly Asp Ile Ala Leu Leu Gln Leu Ser Arg
 180 185 190
 Pro Ile Thr Phe Ser Arg Tyr Ile Arg Pro Ile Cys Leu Pro Ala Ala
 195 200 205
 Asn Ala Ser Phe Pro Asn Gly Leu His Cys Thr Val Thr Gly Trp Gly
 210 215 220
 His Val Ala Pro Ser Val Ser Leu Leu Thr Pro Lys Pro Leu Gln Gln
 225 230 235 240
 Leu Glu Val Pro Leu Ile Ser Arg Glu Thr Trp
 245 250

<210> 1051

<211> 171

<212> PRT

<213> Homo sapiens

<400> 1051

His Tyr Arg Arg Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Arg Gly Arg
 1 5 10 15
 Val Asp Ile Arg Arg Arg Ser Ser Arg Arg Pro Arg Glu Pro Pro Gly
 20 25 30
 Pro Ser Arg Arg Arg Arg Arg Arg Arg Pro Asp Pro Arg Thr Met Pro
 35 40 45
 Ser Glu Lys Thr Phe Lys Gln Arg Arg Thr Phe Glu Gln Arg Val Glu
 50 55 60
 Asp Val Arg Leu Ile Arg Glu Gln His Pro Thr Lys Ile Pro Val Ile

1035

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Ile | Glu | Arg | Tyr | Lys | Gly | Glu | Lys | Gln | Leu | Pro | Val | Leu | Asp | Lys | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Phe | Leu | Val | Pro | Asp | His | Val | Asn | Met | Ser | Glu | Leu | Ile | Lys | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Arg | Arg | Arg | Leu | Gln | Leu | Asn | Ala | Asn | Gln | Ala | Phe | Phe | Leu | Leu |
| | | | 115 | | | | | 120 | | | | | 125 | | |
| Val | Asn | Gly | His | Ser | Met | Val | Ser | Val | Ser | Thr | Pro | Ile | Ser | Glu | Val |
| | | | 130 | | | | | 135 | | | | 140 | | | |
| Tyr | Glu | Ser | Glu | Lys | Asp | Glu | Asp | Gly | Phe | Leu | Tyr | Met | Val | Tyr | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Gln | Glu | Thr | Phe | Gly | Met | Lys | Leu | Ser | Val | | | | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 1052

<211> 189

<212> PRT

<213> Homo sapiens

<400> 1052

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Pro | Thr | Cys | Ser | Ala | Arg | Cys | Glu | Pro | Val | Arg | Pro | Pro | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Pro | Glu | Gln | Pro | Ala | Ser | Leu | His | Arg | Leu | Leu | Ser | Val | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Arg | Ala | Ala | Ile | Ala | Val | Met | Leu | Gly | Ala | Ala | Leu | Arg | Arg | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Val | Ala | Ala | Thr | Thr | Arg | Ala | Asp | Pro | Arg | Gly | Leu | Leu | His | Ser |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ala | Arg | Thr | Pro | Gly | Pro | Ala | Val | Ala | Ile | Gln | Ser | Val | Arg | Cys | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | His | Gly | Ser | Gln | Glu | Thr | Asp | Glu | Glu | Phe | Asp | Ala | Arg | Trp | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Tyr | Phe | Asn | Lys | Pro | Asp | Ile | Asp | Ala | Trp | Glu | Leu | Arg | Lys | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Asn | Thr | Leu | Val | Thr | Tyr | Asp | Met | Val | Pro | Glu | Pro | Lys | Ile | Ile |
| | | | 115 | | | | 120 | | | | | 125 | | | |

1036

Asp Ala Ala Leu Arg Ala Cys Arg Arg Leu Asn Asp Phe Ala Ser Thr
 130 135 140

Val Arg Ile Leu Glu Val Val Lys Asp Lys Ala Gly Pro His Lys Glu
 145 150 155 160

Ile Tyr Pro Tyr Val Ile Gln Glu Leu Arg Pro Thr Leu Asn Glu Leu
 165 170 175

Gly Ile Ser Thr Pro Glu Glu Leu Gly Leu Asp Lys Val
 180 185

<210> 1053

<211> 315

<212> PRT

<213> Homo sapiens

<400> 1053

Arg His Ser Ala Ser Pro Arg Cys Arg Leu Pro Pro Thr Glu Pro Val
 1 5 10 15

Ser Gly Leu Arg Ala Ser Gly Glu Met Leu Leu Pro Leu Leu Leu Leu
 20 25 30

Leu Pro Met Cys Trp Ala Val Glu Val Lys Arg Pro Arg Gly Val Ser
 35 40 45

Leu Thr Asn His His Phe Tyr Asp Glu Ser Lys Pro Phe Thr Cys Leu
 50 55 60

Asp Gly Ser Ala Thr Ile Pro Phe Asp Gln Val Asn Asp Asp Tyr Cys
 65 70 75 80

Asp Cys Lys Asp Gly Ser Asp Glu Pro Gly Thr Ala Ala Cys Pro Asn
 85 90 95

Gly Ser Phe His Cys Thr Asn Thr Gly Tyr Lys Pro Leu Tyr Ile Pro
 100 105 110

Ser Asn Arg Val Asn Asp Gly Val Cys Asp Cys Cys Asp Gly Thr Asp
 115 120 125

Glu Tyr Asn Ser Gly Val Ile Cys Glu Asn Thr Cys Lys Glu Lys Gly
 130 135 140

Arg Lys Glu Arg Glu Ser Leu Gln Gln Met Ala Glu Val Thr Arg Glu
 145 150 155 160

1037

Gly Phe Arg Leu Lys Lys Ile Leu Ile Glu Asp Trp Lys Lys Ala Arg
 165 170 175
 Glu Glu Lys Gln Lys Lys Leu Ile Glu Leu Gln Ala Gly Lys Lys Ser
 180 185 190
 Leu Glu Asp Gln Val Glu Met Leu Arg Thr Val Lys Glu Glu Ala Glu
 195 200 205
 Lys Pro Glu Arg Glu Ala Lys Glu Gln His Gln Lys Leu Trp Glu Glu
 210 215 220
 Gln Leu Ala Ala Ala Lys Ala Gln Gln Glu Gln Glu Leu Ala Ala Asp
 225 230 235 240
 Ala Phe Lys Glu Leu Asp Asp Asp Met Asp Gly Thr Val Ser Val Thr
 245 250 255
 Glu Leu Gln Thr His Pro Glu Leu Asp Thr Asp Gly Asp Gly Ala Leu
 260 265 270
 Ser Glu Ala Glu Ala Gln Ala Leu Leu Ser Gly Asp Thr Gln Thr Asp
 275 280 285
 Ala Thr Ser Phe Tyr Asp Arg Val Trp Gly Pro Gly Gly Ala Gly Pro
 290 295 300
 His Ser Gln Ala Pro Thr Ala Phe Lys Asp Gly
 305 310 315

<210> 1054

<211> 138

<212> PRT

<213> Homo sapiens

<400> 1054

Val Trp Lys Val Ile Val Trp Ser His Ser Ser Leu Ile Thr Leu Leu
 1 5 10 15
 Gly Ile Leu Glu Glu Lys Gly Ser Lys Thr Tyr Thr His Thr Pro Thr
 20 25 30
 Gln Ser Asn Ser Val Phe Lys Gln Ile Pro Arg Ile Leu Gly Pro Gly
 35 40 45
 Leu Asn Lys Ala Gly Lys Phe Pro Ser Leu Leu Thr His Asn Glu Asn
 50 55 60
 Met Val Ala Lys Val Asp Glu Val Lys Ser Thr Ile Lys Phe Gln Met

1038

65 70 75 80
 Lys Lys Val Leu Cys Leu Ala Val Ala Val Gly His Val Lys Met Thr
 85 90 95
 Asp Asp Glu Leu Val Tyr Asn Ile His Leu Ala Val Asn Phe Leu Val
 100 105 110
 Ser Leu Leu Lys Lys Asn Trp Gln Asn Val Arg Ala Leu Tyr Ile Lys
 115 120 125
 Ser Thr Met Gly Lys Pro Gln Arg Leu Tyr
 130 135

<210> 1055

<211> 243

<212> PRT

<213> Homo sapiens

<400> 1055

Gly Thr Arg Glu Glu Ala Gly Val Asp Leu Val Ser Pro Thr Pro Leu
 1 5 10 15
 Thr Pro Pro Asp Pro Gly Ala Ala Ser Ala Thr Ala Thr Ala Pro Ala
 20 25 30
 Pro Ala Ala Ala Arg Arg Gly Glu Ala Met Ala Lys Val Ser Val Leu
 35 40 45
 Asn Val Ala Val Leu Glu Asn Pro Ser Pro Phe His Ser Pro Phe Arg
 50 55 60
 Phe Glu Ile Ser Phe Glu Cys Ser Glu Ala Leu Ala Asp Asp Leu Glu
 65 70 75 80
 Trp Lys Ile Ile Tyr Val Gly Ser Ala Glu Ser Glu Glu Phe Asp Gln
 85 90 95
 Ile Leu Asp Ser Val Leu Val Gly Pro Val Pro Ala Gly Arg His Met
 100 105 110
 Phe Val Phe Gln Ala Asp Ala Pro Asn Pro Ser Leu Ile Pro Glu Thr
 115 120 125
 Asp Ala Val Gly Val Thr Val Val Leu Ile Thr Cys Thr Tyr His Gly
 130 135 140
 Gln Glu Phe Ile Arg Val Gly Tyr Tyr Val Asn Asn Glu Tyr Leu Asn
 145 150 155 160

1039

Pro Glu Leu Arg Glu Asn Pro Pro Met Lys Pro Asp Phe Ser Gln Leu
 165 170 175
 Gln Arg Asn Ile Leu Ala Ser Asn Pro Arg Val Thr Arg Phe His Ile
 180 185 190
 Asn Trp Asp Asn Asn Met Asp Arg Leu Glu Ala Ile Glu Thr Gln Asp
 195 200 205
 Pro Ser Leu Gly Cys Gly Leu Pro Leu Asn Cys Thr Pro Ile Lys Gly
 210 215 220
 Leu Gly Leu Pro Gly Cys Ile Pro Gly Leu Leu Pro Glu Asn Ser Met
 225 230 235 240
 Asp Cys Ile

<210> 1056

<211> 211

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1056

His Glu Pro Arg Arg Leu Leu Xaa Asp Ala Glu Gly Pro Glu Glu Thr
 1 5 10 15

Val Arg Leu Trp Pro Ala Ala Arg Ala Ala Met Asp Ala Ala Glu Val
 20 25 30

Glu Phe Leu Ala Glu Lys Glu Leu Val Thr Ile Ile Pro Asn Phe Ser
 35 40 45

Leu Asp Lys Ile Tyr Leu Ile Gly Gly Asp Leu Gly Pro Phe Asn Pro
 50 55 60

Gly Leu Pro Val Glu Val Pro Leu Trp Leu Ala Ile Asn Leu Lys Gln
 65 70 75 80

Arg Gln Lys Cys Arg Leu Leu Pro Pro Glu Trp Met Asp Val Glu Lys
 85 90 95

Leu Glu Lys Met Arg Asp His Glu Arg Lys Glu Glu Thr Phe Thr Pro

1040

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                100                105                110
Met  Pro  Ser  Pro  Tyr  Tyr  Met  Glu  Leu  Thr  Lys  Leu  Leu  Leu  Asn  His
      115                120                125

Ala  Ser  Asp  Asn  Ile  Pro  Lys  Ala  Asp  Glu  Ile  Arg  Thr  Leu  Val  Lys
      130                135                140

Asp  Met  Trp  Asp  Thr  Arg  Ile  Ala  Lys  Leu  Arg  Val  Ser  Ala  Asp  Ser
145                150                155                160

Phe  Val  Arg  Gln  Gln  Glu  Ala  His  Ala  Lys  Leu  Asp  Asn  Leu  Thr  Leu
      165                170                175

Met  Glu  Ile  Asn  Thr  Ser  Gly  Thr  Phe  Leu  Thr  Gln  Ala  Leu  Asn  His
      180                185                190

Met  Tyr  Lys  Leu  Arg  Thr  Asn  Leu  Gln  Pro  Leu  Glu  Ser  Thr  Gln  Ser
      195                200                205

Gln  Asp  Phe
      210

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<210> 1057

<211> 407

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (343)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1057

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Val  Ile  Leu  Gly  Ala  Gly  Leu  Arg  Asp  Lys  Asp  Met  Trp  Ile  Pro  Val
  1                5                10                15

Val  Gly  Leu  Pro  Arg  Arg  Leu  Arg  Leu  Ser  Ala  Leu  Ala  Gly  Ala  Gly
      20                25                30

Arg  Phe  Cys  Ile  Leu  Gly  Ser  Glu  Ala  Ala  Thr  Arg  Lys  His  Leu  Pro
      35                40                45

Ala  Arg  Asn  His  Cys  Gly  Leu  Ser  Asp  Ser  Ser  Pro  Gln  Leu  Trp  Pro
      50                55                60

Glu  Pro  Asp  Phe  Arg  Asn  Pro  Pro  Arg  Lys  Ala  Ser  Lys  Ala  Ser  Leu
      65                70                75                80

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1041

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|
| Asp | Phe | Lys | Arg | Tyr | Val | Thr | Asp | Arg | Arg | Leu | Ala | Glu | Thr | Leu | Ala | | 85 | 90 | 95 | |
| Gln | Ile | Tyr | Leu | Gly | Lys | Pro | Ser | Arg | Pro | Pro | His | Leu | Leu | Leu | Glu | | 100 | 105 | 110 | |
| Cys | Asn | Pro | Gly | Pro | Gly | Ile | Leu | Thr | Gln | Ala | Leu | Leu | Glu | Ala | Gly | | 115 | 120 | 125 | |
| Ala | Lys | Val | Val | Ala | Leu | Glu | Ser | Asp | Lys | Thr | Phe | Ile | Pro | His | Leu | | 130 | 135 | 140 | |
| Glu | Ser | Leu | Gly | Lys | Asn | Leu | Asp | Gly | Lys | Leu | Arg | Val | Ile | His | Cys | | 145 | 150 | 155 | 160 |
| Asp | Phe | Phe | Lys | Leu | Asp | Pro | Arg | Ser | Gly | Gly | Val | Ile | Lys | Pro | Pro | | 165 | 170 | 175 | |
| Ala | Met | Ser | Ser | Arg | Gly | Leu | Phe | Lys | Asn | Leu | Gly | Ile | Glu | Ala | Val | | 180 | 185 | 190 | |
| Pro | Trp | Thr | Ala | Asp | Ile | Pro | Leu | Lys | Val | Val | Gly | Met | Phe | Pro | Ser | | 195 | 200 | 205 | |
| Arg | Gly | Glu | Lys | Arg | Ala | Leu | Trp | Lys | Leu | Ala | Tyr | Asp | Leu | Tyr | Ser | | 210 | 215 | 220 | |
| Cys | Thr | Ser | Ile | Tyr | Lys | Phe | Gly | Arg | Ile | Glu | Val | Asn | Met | Phe | Ile | | 225 | 230 | 235 | 240 |
| Gly | Glu | Lys | Glu | Phe | Gln | Lys | Leu | Met | Ala | Asp | Pro | Gly | Asn | Pro | Asp | | 245 | 250 | 255 | |
| Leu | Tyr | His | Val | Leu | Ser | Val | Ile | Trp | Gln | Leu | Ala | Cys | Glu | Ile | Lys | | 260 | 265 | 270 | |
| Val | Leu | His | Met | Glu | Pro | Trp | Ser | Ser | Phe | Asp | Ile | Tyr | Thr | Arg | Lys | | 275 | 280 | 285 | |
| Gly | Pro | Leu | Glu | Asn | Pro | Lys | Arg | Arg | Glu | Leu | Leu | Asp | Gln | Leu | Gln | | 290 | 295 | 300 | |
| Gln | Lys | Leu | Tyr | Leu | Ile | Gln | Met | Ile | Pro | Arg | Gln | Asn | Leu | Phe | Thr | | 305 | 310 | 315 | 320 |
| Lys | Asn | Leu | Thr | Pro | Met | Asn | Tyr | Asn | Ile | Phe | Phe | His | Leu | Leu | Lys | | 325 | 330 | 335 | |
| His | Cys | Phe | Gly | Arg | Arg | Xaa | Ala | Thr | Val | Ile | Asp | His | Leu | Arg | Ser | | 340 | 345 | 350 | |

1042

Leu Thr Pro Leu Asp Ala Arg Asp Ile Leu Met Gln Ile Gly Lys Gln
 355 360 365
 Glu Asp Glu Lys Val Val Asn Met His Pro Gln Asp Phe Lys Thr Leu
 370 375 380
 Phe Glu Thr Ile Glu Arg Ser Lys Asp Cys Ala Tyr Lys Trp Leu Tyr
 385 390 395 400
 Asp Glu Thr Leu Glu Asp Arg
 405

<210> 1058
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 1058
 Ser Ser Trp Val Gly Gly Ser Leu Arg Gln Ala Ala Thr Leu Glu Gly
 1 5 10 15
 Glu Gln Gly Ser Ala Val Ser Ala Ala Ser His Ala Arg Ser Asp Leu
 20 25 30
 Ser Leu Gly Thr Pro Gln Glu Pro Glu Asp Ser Ser Gly Gln Cys Arg
 35 40 45
 Trp Gly Val Gly Gly Glu Ser Gly Arg Glu Ala Leu Arg Ala Pro Ser
 50 55 60
 Pro Thr Thr Asn Leu Ala Leu Val Val Ile Phe Arg Gln Asn Phe Val
 65 70 75 80
 Val Phe Phe Pro Phe Tyr Asp Gly Phe
 85

<210> 1059
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 1059
 Gly Thr Arg Pro Ser Ser Cys Ser Gln Thr Glu Ala Gln Pro Pro Ser
 1 5 10 15
 Pro Val Ser Ile Thr Ser Ala Ala Ser Met Ser Asp Lys Leu Pro Tyr
 20 25 30

1043

Lys Val Ala Asp Ile Gly Leu Ala Ala Trp Gly Arg Lys Ala Leu Asp
 35 40 45
 Ile Ala Glu Asn Glu Met Pro Gly Leu Met Arg Met Arg Glu Arg Tyr
 50 55 60
 Ser Ala Ser Lys Pro Leu Lys Gly Ala Arg Ile Ala Gly Cys Leu His
 65 70 75 80
 Met Thr Val Glu Thr Ala Val Leu Ile Glu Thr Leu Val Thr Leu Gly
 85 90 95
 Ala Glu Val Gln Trp Ser Ser Cys Asn Ile Phe Ser Thr Gln Asp His
 100 105 110
 Ala Ala Ala Ala Ile Ala Lys Ala Gly Ile Pro Val Tyr Ala Trp Lys
 115 120 125
 Gly Glu Thr Asp Glu Glu Tyr Leu Trp Cys Ile Glu Gln Thr Leu Tyr
 130 135 140
 Phe Lys Asp Gly Pro Leu Asn Met Ile Leu Asp Asp Gly Gly Asp Leu
 145 150 155 160
 Thr Asn Leu Ile His Thr Lys Tyr Pro Gln Leu Leu Pro Gly Ile Arg
 165 170 175
 Gly Ile Ser Glu Glu Thr Thr Thr Gly Val His Asn Leu Tyr Lys Met
 180 185 190
 Met Ala Asn Gly Ile Leu Lys Val Pro Ala Ile Asn Val Asn Asp Ser
 195 200 205
 Val Thr Lys Ser Lys Phe Asp Asn Leu Tyr Gly Cys Arg Glu Ser Leu
 210 215 220
 Ile Asp Gly Ile Lys Arg Ala Thr Asp Val Met Ile Ala Gly Lys Val
 225 230 235 240
 Ala Val Val Ala Gly Tyr Gly Asp Val Gly Lys Gly Cys Ala Gln Ala
 245 250 255
 Leu Arg Gly Phe Gly Ala Arg Val Ile Ile Thr Glu Ile Asp Pro Ile
 260 265 270
 Asn Ala Leu Gln Ala Ala Met Glu Gly Tyr Glu Val Thr Thr Met Asp
 275 280 285
 Glu Ala Cys Gln Glu Gly Asn Ile Phe Val Thr Thr Thr Gly Cys Ile
 290 295 300

1044

Asp Ile Ile Leu Gly Arg His Phe Glu Gln Met Lys Asp Asp Ala Ile
 305 310 315 320

Val Cys Asn Ile Gly His Phe Asp Val Glu Ile Asp Val Lys Trp Leu
 325 330 335

Asn Glu Asn Ala Val Glu Lys Val Asn Ile Lys Pro Gln Val Asp Arg
 340 345 350

Tyr Arg Leu Lys Asn Gly Arg Arg Ile Ile Leu Leu Ala Glu Gly Arg
 355 360 365

Leu Val Asn Leu Gly Cys Ala Met Gly His Pro Ser Phe Val Met Ser
 370 375 380

Asn Ser Phe Thr Asn Gln Val Met Ala Gln Ile Glu Leu Trp Thr His
 385 390 395 400

Pro Asp Lys Tyr Pro Val Gly Val His Phe Leu Pro Lys Lys Leu Asp
 405 410 415

Glu Ala Val Ala Glu Ala His Leu Gly Lys Leu Asn Val Lys Leu Thr
 420 425 430

Lys Leu Thr Glu Lys Gln Ala Gln Tyr Leu Gly Met Ser Cys Asp Gly
 435 440 445

Pro Phe Lys Pro Asp His Tyr Arg Tyr
 450 455

<210> 1060

<211> 511

<212> PRT

<213> Homo sapiens

<400> 1060

Glu Gly Val Met Ala Asp Gly Gln Val Ala Glu Leu Leu Leu Arg Arg
 1 5 10 15

Leu Glu Ala Ser Asp Gly Gly Leu Asp Ser Ala Glu Leu Ala Ala Glu
 20 25 30

Leu Gly Met Glu His Gln Ala Val Val Gly Ala Val Lys Ser Leu Gln
 35 40 45

Ala Leu Gly Glu Val Ile Glu Ala Glu Leu Arg Ser Thr Lys His Trp
 50 55 60

1045

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Thr | Ala | Glu | Gly | Glu | Glu | Ile | Ala | Arg | Glu | Gly | Ser | His | Glu | 65 | 70 | 75 | 80 |
| Ala | Arg | Val | Phe | Arg | Ser | Ile | Pro | Pro | Glu | Gly | Leu | Ala | Gln | Ser | Glu | 85 | 90 | 95 | |
| Leu | Met | Arg | Leu | Pro | Ser | Gly | Lys | Val | Gly | Phe | Ser | Lys | Ala | Met | Ser | 100 | 105 | 110 | |
| Asn | Lys | Trp | Ile | Arg | Val | Asp | Lys | Ser | Ala | Ala | Asp | Gly | Pro | Arg | Val | 115 | 120 | 125 | |
| Phe | Arg | Val | Val | Asp | Ser | Met | Glu | Asp | Glu | Val | Gln | Arg | Arg | Leu | Gln | 130 | 135 | 140 | |
| Leu | Val | Arg | Gly | Gly | Gln | Ala | Glu | Lys | Leu | Gly | Glu | Lys | Glu | Arg | Ser | 145 | 150 | 155 | 160 |
| Glu | Leu | Arg | Lys | Arg | Lys | Leu | Leu | Ala | Glu | Val | Thr | Leu | Lys | Thr | Tyr | 165 | 170 | 175 | |
| Trp | Val | Ser | Lys | Gly | Ser | Ala | Phe | Ser | Thr | Ser | Ile | Ser | Lys | Gln | Glu | 180 | 185 | 190 | |
| Thr | Glu | Leu | Ser | Pro | Glu | Met | Ile | Ser | Ser | Gly | Ser | Trp | Arg | Asp | Arg | 195 | 200 | 205 | |
| Pro | Phe | Lys | Pro | Tyr | Asn | Phe | Leu | Ala | His | Gly | Val | Leu | Pro | Asp | Ser | 210 | 215 | 220 | |
| Gly | His | Leu | His | Pro | Leu | Leu | Lys | Val | Arg | Ser | Gln | Phe | Arg | Gln | Ile | 225 | 230 | 235 | 240 |
| Phe | Leu | Glu | Met | Gly | Phe | Thr | Glu | Met | Pro | Thr | Asp | Asn | Phe | Ile | Glu | 245 | 250 | 255 | |
| Ser | Ser | Phe | Trp | Asn | Phe | Asp | Ala | Leu | Phe | Gln | Pro | Gln | Gln | His | Pro | 260 | 265 | 270 | |
| Ala | Arg | Asp | Gln | His | Asp | Thr | Phe | Phe | Leu | Arg | Asp | Pro | Ala | Glu | Ala | 275 | 280 | 285 | |
| Leu | Gln | Leu | Pro | Met | Asp | Tyr | Val | Gln | Arg | Val | Lys | Arg | Thr | His | Ser | 290 | 295 | 300 | |
| Gln | Gly | Gly | Tyr | Gly | Ser | Gln | Gly | Tyr | Lys | Tyr | Asn | Trp | Lys | Leu | Asp | 305 | 310 | 315 | 320 |
| Glu | Ala | Arg | Lys | Asn | Leu | Leu | Arg | Thr | His | Thr | Thr | Ser | Ala | Ser | Ala | 325 | 330 | 335 | |

1046

Arg Ala Leu Tyr Arg Leu Ala Gln Lys Lys Pro Phe Thr Pro Val Lys
 340 345 350

Tyr Phe Ser Ile Asp Arg Val Phe Arg Asn Glu Thr Leu Asp Ala Thr
 355 360 365

His Leu Ala Glu Phe His Gln Ile Glu Gly Val Val Ala Asp His Gly
 370 375 380

Leu Thr Leu Gly His Leu Met Gly Val Leu Arg Glu Phe Phe Thr Lys
 385 390 395 400

Leu Gly Ile Thr Gln Leu Arg Phe Lys Pro Ala Tyr Asn Pro Tyr Thr
 405 410 415

Glu Pro Ser Met Glu Val Phe Ser Tyr His Gln Gly Leu Lys Lys Trp
 420 425 430

Val Glu Val Gly Asn Ser Gly Val Phe Arg Pro Glu Met Leu Leu Pro
 435 440 445

Met Gly Leu Pro Glu Asn Val Ser Val Ile Ala Trp Gly Leu Ser Leu
 450 455 460

Glu Arg Pro Thr Met Ile Lys Tyr Gly Ile Asn Asn Ile Arg Glu Leu
 465 470 475 480

Val Gly His Lys Val Asn Leu Gln Met Val Tyr Asp Ser Pro Leu Cys
 485 490 495

Arg Leu Asp Ala Glu Pro Arg Pro Pro Pro Thr Gln Glu Ala Ala
 500 505 510

<210> 1061

<211> 228

<212> PRT

<213> Homo sapiens

<400> 1061

Arg Ala Ala Ser Thr Pro Arg Ala Ala Pro Gly Ala Ala Leu Leu Ser
 1 5 10 15

Pro Pro Gly Leu Arg Ala Ala Pro Ala Ala Leu Val Met Gly Glu Gly
 20 25 30

Thr Cys Glu Lys Arg Arg Asp Ala Glu Tyr Gly Ala Ser Pro Glu Gln
 35 40 45

Val Ala Asp Asn Gly Asp Asp His Ser Glu Gly Gly Leu Val Glu Asn

1047

| | | | | |
|---|-----|----|-----|---------|
| 50 | | 55 | | 60 |
| His Val Asp Ser Thr Met Asn Met Leu Gly Gly Gly Gly Ser Ala Gly | | | | |
| 65 | | 70 | | 75 80 |
| Arg Lys Pro Leu Lys Ser Gly Met Lys Glu Leu Ala Val Phe Arg Glu | | | | |
| | 85 | | 90 | 95 |
| Lys Val Thr Glu Gln His Arg Gln Met Gly Lys Gly Gly Lys His His | | | | |
| | 100 | | 105 | 110 |
| Leu Gly Leu Glu Glu Pro Lys Lys Leu Arg Pro Pro Pro Ala Arg Thr | | | | |
| | 115 | | 120 | 125 |
| Pro Cys Gln Gln Glu Leu Asp Gln Val Leu Glu Arg Ile Ser Thr Met | | | | |
| | 130 | | 135 | 140 |
| Arg Leu Pro Asp Glu Arg Gly Pro Leu Glu His Leu Tyr Ser Leu His | | | | |
| | 145 | | 150 | 155 160 |
| Ile Pro Asn Cys Asp Lys His Gly Leu Tyr Asn Leu Lys Gln Cys Lys | | | | |
| | 165 | | 170 | 175 |
| Met Ser Leu Asn Gly Gln Arg Gly Glu Cys Trp Cys Val Asn Pro Asn | | | | |
| | 180 | | 185 | 190 |
| Thr Gly Lys Leu Ile Gln Gly Ala Pro Thr Ile Arg Gly Asp Pro Glu | | | | |
| | 195 | | 200 | 205 |
| Cys His Leu Phe Tyr Asn Glu Gln Gln Glu Ala Arg Gly Val His Thr | | | | |
| | 210 | | 215 | 220 |
| Gln Arg Met Gln | | | | |
| 225 | | | | |

<210> 1062

<211> 324

<212> PRT

<213> Homo sapiens

<400> 1062

| | | | | |
|---|----|---|----|-------|
| Pro Arg Val Met Ala Met Ala Thr Lys Gly Gly Thr Val Lys Ala Ala | | | | |
| 1 | | 5 | | 10 15 |
| Ser Gly Phe Asn Ala Met Glu Asp Ala Gln Thr Leu Arg Lys Ala Met | | | | |
| | 20 | | 25 | 30 |
| Lys Gly Leu Gly Thr Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr | | | | |
| | 35 | | 40 | 45 |

1048

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Thr | Ala | Gln | Arg | Gln | Glu | Ile | Arg | Thr | Ala | Tyr | Lys | Ser | Thr | 50 | 55 | 60 | |
| Ile | Gly | Arg | Asp | Leu | Ile | Asp | Asp | Leu | Lys | Ser | Glu | Leu | Ser | Gly | Asn | 65 | 70 | 75 | 80 |
| Phe | Glu | Gln | Val | Ile | Val | Gly | Met | Met | Thr | Pro | Thr | Val | Leu | Tyr | Asp | 85 | 90 | 95 | |
| Val | Gln | Glu | Leu | Arg | Arg | Ala | Met | Lys | Gly | Ala | Gly | Thr | Asp | Glu | Gly | 100 | 105 | 110 | |
| Cys | Leu | Ile | Glu | Ile | Leu | Ala | Ser | Arg | Thr | Pro | Glu | Glu | Ile | Arg | Arg | 115 | 120 | 125 | |
| Ile | Ser | Gln | Thr | Tyr | Gln | Gln | Gln | Tyr | Gly | Arg | Ser | Leu | Glu | Asp | Asp | 130 | 135 | 140 | |
| Ile | Arg | Ser | Asp | Thr | Ser | Phe | Met | Phe | Gln | Arg | Val | Leu | Val | Ser | Leu | 145 | 150 | 155 | 160 |
| Ser | Ala | Gly | Gly | Arg | Asp | Glu | Gly | Asn | Tyr | Leu | Asp | Asp | Ala | Leu | Val | 165 | 170 | 175 | |
| Arg | Gln | Asp | Ala | Gln | Asp | Leu | Tyr | Glu | Ala | Gly | Glu | Lys | Lys | Trp | Gly | 180 | 185 | 190 | |
| Thr | Asp | Glu | Val | Lys | Phe | Leu | Thr | Val | Leu | Cys | Ser | Arg | Asn | Arg | Asn | 195 | 200 | 205 | |
| His | Leu | Leu | His | Val | Phe | Asp | Glu | Tyr | Lys | Arg | Ile | Ser | Gln | Lys | Asp | 210 | 215 | 220 | |
| Ile | Glu | Gln | Ser | Ile | Lys | Ser | Glu | Thr | Ser | Gly | Ser | Phe | Glu | Asp | Ala | 225 | 230 | 235 | 240 |
| Leu | Leu | Ala | Ile | Val | Lys | Cys | Met | Arg | Asn | Lys | Ser | Ala | Tyr | Phe | Ala | 245 | 250 | 255 | |
| Glu | Lys | Leu | Tyr | Lys | Ser | Met | Lys | Gly | Leu | Gly | Thr | Asp | Asp | Asn | Thr | 260 | 265 | 270 | |
| Leu | Ile | Arg | Val | Met | Val | Ser | Arg | Ala | Glu | Ile | Asp | Met | Leu | Asp | Ile | 275 | 280 | 285 | |
| Arg | Ala | His | Phe | Lys | Arg | Leu | Tyr | Gly | Lys | Ser | Leu | Tyr | Ser | Phe | Ile | 290 | 295 | 300 | |
| Lys | Gly | Asp | Thr | Ser | Gly | Asp | Tyr | Arg | Lys | Val | Leu | Leu | Val | Leu | Cys | 305 | 310 | 315 | 320 |

1049

Gly Gly Asp Asp

<210> 1063

<211> 355

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1063

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Tyr | Xaa | Ile | Pro | Gly | Ser | Thr | His | Ala | Ser | Gly | Lys | Ile | Leu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Ile | Ser | Ser | Ser | Ser | Val | Leu | His | Gly | Met | Val | Phe | Lys | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Glu | Val | Xaa | Val | Thr | Ser | Val | Lys | Asp | Ala | Lys | Ile | Ala | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ser | Cys | Pro | Phe | Asp | Gly | Met | Ile | Thr | Glu | Thr | Lys | Gly | Thr | Val |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Lys | Thr | Ala | Glu | Glu | Leu | Met | Asn | Phe | Ser | Lys | Gly | Glu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Met | Asp | Ala | Gln | Val | Lys | Ala | Ile | Ala | Asp | Thr | Gly | Ala | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Val | Thr | Gly | Gly | Lys | Val | Ala | Asp | Met | Ala | Leu | His | Tyr | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Tyr | Asn | Ile | Met | Leu | Val | Arg | Leu | Asn | Ser | Lys | Trp | Asp | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

1050

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Arg Arg Leu Cys Lys Thr Val Gly Ala Thr Ala Leu Pro Arg Leu Thr
 130                               135                               140

Pro Pro Val Leu Glu Glu Met Gly His Cys Asp Ser Val Tyr Leu Ser
145                               150                               155                               160

Glu Val Gly Asp Thr Gln Val Val Val Phe Lys His Glu Lys Glu Asp
                               165                               170                               175

Gly Ala Ile Ser Thr Ile Val Leu Arg Gly Ser Thr Asp Asn Leu Met
                               180                               185                               190

Asp Asp Ile Glu Arg Ala Val Asp Asp Gly Val Asn Thr Phe Lys Val
 195                               200                               205

Leu Thr Arg Asp Lys Arg Leu Val Pro Gly Gly Gly Ala Thr Glu Ile
 210                               215                               220

Glu Leu Ala Lys Gln Ile Thr Ser Tyr Gly Glu Thr Cys Pro Gly Leu
225                               230                               235                               240

Glu Gln Tyr Ala Ile Lys Lys Phe Ala Glu Ala Phe Glu Ala Ile Pro
                               245                               250                               255

Arg Ala Leu Ala Glu Asn Ser Gly Val Lys Ala Asn Glu Val Ile Ser
                               260                               265                               270

Lys Leu Tyr Ala Val His Gln Glu Gly Asn Lys Asn Val Gly Leu Asp
 275                               280                               285

Ile Glu Ala Glu Val Pro Ala Val Lys Asp Met Leu Glu Ala Gly Ile
 290                               295                               300

Leu Asp Thr Tyr Leu Gly Lys Tyr Trp Ala Ile Lys Leu Ala Thr Asn
305                               310                               315                               320

Ala Ala Val Thr Val Leu Arg Val Asp Gln Ile Ile Met Ala Lys Pro
                               325                               330                               335

Ala Gly Gly Pro Lys Pro Pro Ser Gly Lys Lys Asp Trp Asp Asp Asp
 340                               345                               350

Gln Asn Asp
 355

```

<210> 1064

<211> 113

<212> PRT

<213> Homo sapiens

1051

<400> 1064

Ser Pro Phe Thr Leu His Cys Cys His Ser Thr Leu Tyr Asp Gly Arg
 1 5 10 15

Thr Gly Ser Ser Arg Glu Asn Cys Thr Val Thr Thr Val Phe Phe Thr
 20 25 30

Leu Phe Gln Gly Ser Leu Ser Pro Asp Ile Glu Glu Ile Ser Phe Arg
 35 40 45

Pro Glu Thr Gln Arg Pro His Ser Pro Val Ile Lys Pro Arg Phe His
 50 55 60

Ser Gly Pro Arg Ser Gly Ala Trp Pro Leu Leu Phe Gly Ser His Trp
 65 70 75 80

Glu Ala His Trp Pro Trp Ile Ile Ser Ser Cys Thr Pro Gly Val Leu
 85 90 95

Pro Ala Cys Leu Leu Ser Trp Thr Ala Val Cys Lys Lys Val Thr Lys
 100 105 110

Thr

<210> 1065

<211> 634

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (325)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1065

Val Gln Gly Phe Glu Ser Ala Thr Phe Leu Gly Tyr Phe Lys Ser Gly
 1 5 10 15

Leu Lys Tyr Lys Lys Gly Gly Val Ala Ser Gly Phe Lys His Val Val
 20 25 30

Pro Asn Glu Val Val Val Gln Arg Leu Phe Gln Val Lys Gly Arg Arg
 35 40 45

Val Val Arg Ala Thr Glu Val Pro Val Ser Trp Glu Ser Phe Asn Asn
 50 55 60

1052

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Asp | Cys | Phe | Ile | Leu | Asp | Leu | Gly | Asn | Asn | Ile | His | Gln | Trp | Cys | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Ser | Asn | Ser | Asn | Arg | Tyr | Glu | Arg | Leu | Lys | Ala | Thr | Gln | Val | Ser | |
| | | | 85 | | | | | | 90 | | | | | 95 | | |
| Lys | Gly | Ile | Arg | Asp | Asn | Glu | Arg | Ser | Gly | Arg | Ala | Arg | Val | His | Val | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Glu | Glu | Gly | Thr | Glu | Pro | Glu | Ala | Met | Leu | Gln | Val | Leu | Gly | Pro | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Lys | Pro | Ala | Leu | Pro | Ala | Gly | Thr | Glu | Asp | Thr | Ala | Lys | Glu | Asp | Ala | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ala | Asn | Arg | Lys | Leu | Ala | Lys | Leu | Tyr | Lys | Val | Ser | Asn | Gly | Ala | Gly | |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 | |
| Thr | Met | Ser | Val | Ser | Leu | Val | Ala | Asp | Glu | Asn | Pro | Phe | Ala | Gln | Gly | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ala | Leu | Lys | Ser | Glu | Asp | Cys | Phe | Ile | Leu | Asp | His | Gly | Lys | Asp | Gly | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Lys | Ile | Phe | Val | Trp | Lys | Gly | Lys | Gln | Ala | Asn | Thr | Glu | Glu | Arg | Lys | |
| | | 195 | | | | | 200 | | | | | | 205 | | | |
| Ala | Ala | Leu | Lys | Thr | Ala | Ser | Asp | Phe | Ile | Thr | Lys | Met | Asp | Tyr | Pro | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Lys | Gln | Thr | Gln | Val | Ser | Val | Leu | Pro | Glu | Gly | Gly | Glu | Thr | Pro | Leu | |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 | |
| Phe | Lys | Gln | Phe | Phe | Lys | Asn | Trp | Arg | Asp | Pro | Asp | Gln | Thr | Asp | Gly | |
| | | | 245 | | | | | | 250 | | | | | 255 | | |
| Leu | Gly | Leu | Ser | Tyr | Leu | Ser | Ser | His | Ile | Ala | Asn | Val | Glu | Arg | Val | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Pro | Phe | Asp | Ala | Ala | Thr | Leu | His | Thr | Ser | Thr | Ala | Met | Ala | Ala | Gln | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| His | Gly | Met | Asp | Asp | Asp | Gly | Thr | Gly | Gln | Lys | Gln | Ile | Trp | Arg | Ile | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Glu | Gly | Ser | Asn | Lys | Val | Pro | Val | Asp | Pro | Ala | Thr | Tyr | Gly | Gln | Phe | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | |
| Tyr | Gly | Gly | Asp | Xaa | Tyr | Ile | Ile | Leu | Tyr | Asn | Tyr | Arg | His | Gly | Gly | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |

1053

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Gly | Gln | Ile | Ile | Tyr | Asn | Trp | Gln | Gly | Ala | Gln | Ser | Thr | Gln | 340 | 345 | 350 | |
| Asp | Glu | Val | Ala | Ala | Ser | Ala | Ile | Leu | Thr | Ala | Gln | Leu | Asp | Glu | Glu | 355 | 360 | 365 | |
| Leu | Gly | Gly | Thr | Pro | Val | Gln | Ser | Arg | Val | Val | Gln | Gly | Lys | Glu | Pro | 370 | 375 | 380 | |
| Ala | His | Leu | Met | Ser | Leu | Phe | Gly | Gly | Lys | Pro | Met | Ile | Ile | Tyr | Lys | 385 | 390 | 395 | 400 |
| Gly | Gly | Thr | Ser | Arg | Glu | Gly | Gly | Gln | Thr | Ala | Pro | Ala | Ser | Thr | Arg | 405 | 410 | 415 | |
| Leu | Phe | Gln | Val | Arg | Ala | Asn | Ser | Ala | Gly | Ala | Thr | Arg | Ala | Val | Glu | 420 | 425 | 430 | |
| Val | Leu | Pro | Lys | Ala | Gly | Ala | Leu | Asn | Ser | Asn | Asp | Ala | Phe | Val | Leu | 435 | 440 | 445 | |
| Lys | Thr | Pro | Ser | Ala | Ala | Tyr | Leu | Trp | Val | Gly | Thr | Gly | Ala | Ser | Glu | 450 | 455 | 460 | |
| Ala | Glu | Lys | Thr | Gly | Ala | Gln | Glu | Leu | Leu | Arg | Val | Leu | Arg | Ala | Gln | 465 | 470 | 475 | 480 |
| Pro | Val | Gln | Val | Ala | Glu | Gly | Ser | Glu | Pro | Asp | Gly | Phe | Trp | Glu | Ala | 485 | 490 | 495 | |
| Leu | Gly | Gly | Lys | Ala | Ala | Tyr | Arg | Thr | Ser | Pro | Arg | Leu | Lys | Asp | Lys | 500 | 505 | 510 | |
| Lys | Met | Asp | Ala | His | Pro | Pro | Arg | Leu | Phe | Ala | Cys | Ser | Asn | Lys | Ile | 515 | 520 | 525 | |
| Gly | Arg | Phe | Val | Ile | Glu | Glu | Val | Pro | Gly | Glu | Leu | Met | Gln | Glu | Asp | 530 | 535 | 540 | |
| Leu | Ala | Thr | Asp | Asp | Val | Met | Leu | Leu | Asp | Thr | Trp | Asp | Gln | Val | Phe | 545 | 550 | 555 | 560 |
| Val | Trp | Val | Gly | Lys | Asp | Ser | Gln | Glu | Glu | Glu | Lys | Thr | Glu | Ala | Leu | 565 | 570 | 575 | |
| Thr | Ser | Ala | Lys | Arg | Tyr | Ile | Glu | Thr | Asp | Pro | Ala | Asn | Arg | Asp | Arg | 580 | 585 | 590 | |
| Arg | Thr | Pro | Ile | Thr | Val | Val | Lys | Gln | Gly | Phe | Glu | Pro | Pro | Ser | Phe | 595 | 600 | 605 | |

1054

Val Gly Trp Phe Leu Gly Trp Asp Asp Asp Tyr Trp Ser Val Asp Pro
 610 615 620

Leu Asp Arg Ala Met Ala Glu Leu Ala Ala
 625 630

<210> 1066

<211> 117

<212> PRT

<213> Homo sapiens

<400> 1066

Arg Ala Arg Gly Arg Cys Arg Arg Ser Pro Asp Gly Val Gly Ile Glu
 1 5 10 15

Ala Pro Arg Lys Lys Val Lys Tyr Gln Glu Ile Gln Val Glu Glu Pro
 20 25 30

Tyr Tyr Asp Cys His Glu Cys Thr Glu Thr Phe Thr Ser Ser Thr Ala
 35 40 45

Phe Ser Glu His Leu Lys Thr His Ala Ser Met Ile Ile Phe Glu Pro
 50 55 60

Ala Asn Ala Phe Gly Glu Cys Ser Gly Tyr Ile Glu Arg Ala Ser Thr
 65 70 75 80

Ser Thr Gly Gly Ala Asn Gln Ala Asp Glu Lys Tyr Phe Lys Cys Asp
 85 90 95

Val Cys Gly Gln Leu Phe Asn Asp Arg Leu Ser Leu Ala Arg His Gln
 100 105 110

Asn Thr His Thr Gly
 115

<210> 1067

<211> 192

<212> PRT

<213> Homo sapiens

<400> 1067

Pro Glu Gln Arg Gly Ser Ser Met Ala His Gly Pro Gly Ala Leu Met
 1 5 10 15

Leu Lys Cys Val Val Val Gly Asp Gly Ala Val Gly Lys Thr Cys Leu
 20 25 30

1055

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Ser | Tyr | Ala | Asn | Asp | Ala | Phe | Pro | Glu | Ser | Thr | Cys | Pro | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ser | Thr | Thr | Thr | Gln | Glu | Asp | Tyr | Asp | Arg | Leu | Arg | Pro | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Pro | Met | Thr | Asp | Val | Phe | Leu | Ile | Cys | Phe | Ser | Val | Val | Asn | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ser | Phe | Gln | Asn | Val | Lys | Glu | Glu | Trp | Val | Pro | Glu | Leu | Lys | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Ala | Pro | Asn | Val | Pro | Phe | Leu | Leu | Ile | Gly | Thr | Gln | Ile | Asp | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Asp | Asp | Pro | Lys | Thr | Leu | Ala | Arg | Leu | Asn | Asp | Met | Lys | Glu | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Ile | Cys | Val | Glu | Gln | Gly | Gln | Lys | Leu | Ala | Lys | Glu | Ile | Gly | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Cys | Cys | Tyr | Val | Glu | Cys | Ser | Ala | Leu | Thr | Gln | Lys | Gly | Leu | Lys | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Phe | Asp | Glu | Ala | Ile | Ile | Ala | Ile | Leu | Thr | Pro | Lys | Lys | His | Thr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Lys | Lys | Arg | Ile | Gly | Ser | Arg | Cys | Ile | Asn | Cys | Cys | Leu | Ile | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |

<210> 1068

<211> 360

<212> PRT

<213> Homo sapiens

<400> 1068

Ser Arg Trp Ala Arg Arg Asp Pro Gln Glu Arg Arg Glu Arg Gly Thr
1 5 10 15

Arg Val Gln Ser Ser Gly Thr Trp Ile Gly Ala Gly Ala Met Gly Gly
20 25 30

Glu Gln Glu Glu Glu Arg Phe Asp Gly Met Leu Leu Ala Met Ala Gln
35 40 45

1056

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Gln | His | Glu | Gly | Gly | Val | Gln | Glu | Leu | Val | Asn | Thr | Phe | Phe | Ser | Phe | | |
| 50 | | | | | | 55 | | | | 60 | | | | | | | |
| Leu | Arg | Arg | Lys | Thr | Asp | Phe | Phe | Ile | Gly | Gly | Glu | Glu | Gly | Met | Ala | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Glu | Lys | Leu | Ile | Thr | Gln | Thr | Phe | Ser | His | His | Asn | Gln | Leu | Ala | Gln | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| Lys | Thr | Arg | Arg | Glu | Lys | Arg | Ala | Arg | Gln | Glu | Ala | Glu | Arg | Arg | Glu | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Lys | Ala | Glu | Arg | Ala | Ala | Arg | Leu | Ala | Lys | Glu | Ala | Lys | Ser | Glu | Thr | | |
| | 115 | | | | | | 120 | | | | | 125 | | | | | |
| Ser | Gly | Pro | Gln | Ile | Lys | Glu | Leu | Thr | Asp | Glu | Glu | Ala | Glu | Arg | Leu | | |
| 130 | | | | | | 135 | | | | 140 | | | | | | | |
| Gln | Leu | Glu | Ile | Asp | Gln | Lys | Lys | Asp | Ala | Glu | Asn | His | Glu | Ala | Gln | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Leu | Lys | Asn | Gly | Ser | Leu | Asp | Ser | Pro | Gly | Lys | Gln | Asp | Thr | Glu | Glu | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | |
| Asp | Glu | Glu | Glu | Asp | Glu | Lys | Asp | Lys | Gly | Lys | Leu | Lys | Pro | Asn | Leu | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Gly | Asn | Gly | Ala | Asp | Leu | Pro | Asn | Tyr | Arg | Trp | Thr | Gln | Thr | Leu | Ser | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Glu | Leu | Asp | Leu | Ala | Val | Pro | Phe | Cys | Val | Asn | Phe | Arg | Leu | Lys | Gly | | |
| 210 | | | | | | 215 | | | | 220 | | | | | | | |
| Lys | Asp | Met | Val | Val | Asp | Ile | Gln | Arg | Arg | His | Leu | Arg | Val | Gly | Leu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Lys | Gly | Gln | Pro | Ala | Ile | Ile | Asp | Gly | Glu | Leu | Tyr | Asn | Glu | Val | Lys | | |
| | | | 245 | | | | | 250 | | | | | 255 | | | | |
| Val | Glu | Glu | Ser | Ser | Trp | Leu | Ile | Glu | Asp | Gly | Lys | Val | Val | Thr | Val | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| His | Leu | Glu | Lys | Ile | Asn | Lys | Met | Glu | Trp | Trp | Ser | Arg | Leu | Val | Ser | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | |
| Ser | Asp | Pro | Glu | Ile | Asn | Thr | Lys | Lys | Ile | Asn | Pro | Glu | Asn | Ser | Lys | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Leu | Ser | Asp | Leu | Asp | Ser | Glu | Thr | Arg | Ser | Met | Val | Glu | Lys | Met | Met | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Asp | Gln | Arg | Gln | Lys | Ser | Met | Gly | Leu | Pro | Thr | Ser | Asp | Glu | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Lys | Lys | Gln | Glu | Ile | Leu | Lys | Lys | Phe | Met | Asp | Gln | His | Pro | Glu | Met |
| | | | | 340 | | | | 345 | | | | | 350 | | |
| Asp | Phe | Ser | Lys | Ala | Lys | Phe | Asn | | | | | | | | |
| | | | | 355 | | | 360 | | | | | | | | |

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<210> 1069
<211> 174
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1069
Val Trp Leu Ser Trp Asp Gln Glu Lys Ile Pro Val Leu Asp Gln Glu
  1               5               10               15
Ala Ala Asp Gly Ser Ser Thr Leu Gly Gly Gly Ala Gly Thr Met Gly
      20               25               30
Leu Ser Ala Arg Tyr Gly Pro Gln Phe Thr Leu Gln His Val Pro Asp
      35               40               45
Tyr Arg Gln Xaa Val Tyr Ile Pro Gly Ser Asn Ala Thr Leu Thr Asn
      50               55               60
Ala Ala Gly Lys Arg Gly Trp Gln Gly Pro Ser Arg Trp Gln Trp Gln
      65               70               75               80
Gln Glu Glu Val Gly Gln Glu Gly Glu Glu Val Thr Trp Arg Pro Gly
      85               90               95
Gln Glu Pro Gln Gly Gly Leu Ser Pro Thr Ser Pro Ala Ser Pro Tyr
      100               105               110
Leu His Pro Gly Leu Arg Val Ser Gly Leu Thr Pro Arg Ile Leu Val
      115               120               125
Gly Ala Lys Ala Met Leu Pro Leu Gly Asn Arg Asn Lys Cys Pro Val
      130               135               140
Ser Thr Tyr Pro Phe Pro Pro Arg Gly Leu Asn Met Gln Lys Gln Phe
      145               150               155               160

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1058

Arg Trp Glu Pro Pro Ser Asn Gln Leu Leu Tyr Pro Trp Gly
 165 170

<210> 1070

<211> 445

<212> PRT

<213> Homo sapiens

<400> 1070

Pro Arg Gly Leu Thr Gly Leu Trp Arg Ser Ser Leu Pro Ile Arg Lys
 1 5 10 15

Leu Gln Leu Pro Pro Asp Ala Leu Lys Met Ala Thr Ser Leu Gly Ser
 20 25 30

Asn Thr Tyr Asn Arg Gln Asn Trp Glu Asp Ala Asp Phe Pro Ile Leu
 35 40 45

Cys Gln Thr Cys Leu Gly Glu Asn Pro Tyr Ile Arg Met Thr Lys Glu
 50 55 60

Lys Tyr Gly Lys Glu Cys Lys Ile Cys Ala Arg Pro Phe Thr Val Phe
 65 70 75 80

Arg Trp Cys Pro Gly Val Arg Met Arg Phe Lys Lys Thr Glu Val Cys
 85 90 95

Gln Thr Cys Ser Lys Leu Lys Asn Val Cys Gln Thr Cys Leu Leu Asp
 100 105 110

Leu Glu Tyr Gly Leu Pro Ile Gln Val Arg Asp Ala Gly Leu Ser Phe
 115 120 125

Lys Asp Asp Met Pro Lys Ser Asp Val Asn Lys Glu Tyr Tyr Thr Gln
 130 135 140

Asn Met Glu Arg Glu Ile Ser Asn Ser Asp Gly Thr Arg Pro Val Gly
 145 150 155 160

Met Leu Gly Lys Ala Thr Ser Thr Ser Asp Met Leu Leu Lys Leu Ala
 165 170 175

Arg Thr Thr Pro Tyr Tyr Lys Arg Asn Arg Pro His Ile Cys Ser Phe
 180 185 190

Trp Val Lys Gly Glu Cys Lys Arg Gly Glu Glu Cys Pro Tyr Arg His
 195 200 205

1059

Glu Lys Pro Thr Asp Pro Asp Asp Pro Leu Ala Asp Gln Asn Ile Lys
 210 215 220
 Asp Arg Tyr Tyr Gly Ile Asn Asp Pro Val Ala Asp Lys Leu Leu Lys
 225 230 235 240
 Arg Ala Ser Thr Met Pro Arg Leu Asp Pro Pro Glu Asp Lys Thr Ile
 245 250 255
 Thr Thr Leu Tyr Val Gly Gly Leu Gly Asp Thr Ile Thr Glu Thr Asp
 260 265 270
 Leu Arg Asn His Phe Tyr Gln Phe Gly Glu Ile Arg Thr Ile Thr Val
 275 280 285
 Val Gln Arg Gln Gln Cys Ala Phe Ile Gln Phe Ala Thr Arg Gln Ala
 290 295 300
 Ala Glu Val Ala Ala Glu Lys Ser Phe Asn Lys Leu Ile Val Asn Gly
 305 310 315 320
 Arg Arg Leu Asn Val Lys Trp Gly Arg Ser Gln Ala Ala Arg Gly Lys
 325 330 335
 Glu Lys Glu Lys Asp Gly Thr Thr Asp Ser Gly Ile Lys Leu Glu Pro
 340 345 350
 Val Pro Gly Leu Pro Gly Ala Leu Pro Pro Pro Pro Ala Ala Glu Glu
 355 360 365
 Glu Ala Ser Ala Asn Tyr Phe Asn Leu Pro Pro Ser Gly Pro Pro Ala
 370 375 380
 Val Val Asn Ile Ala Leu Pro Pro Pro Pro Gly Ile Ala Pro Pro Pro
 385 390 395 400
 Pro Pro Gly Phe Gly Pro His Met Phe His Pro Met Gly Pro Pro Pro
 405 410 415
 Pro Phe Met Arg Ala Pro Gly Pro Ile His Tyr Pro Ser Gln Asp Pro
 420 425 430
 Gln Arg Met Gly Ala His Ala Gly Lys His Ser Ser Pro
 435 440 445

<210> 1071

<211> 346

<212> PRT

<213> Homo sapiens

1060

<220>

<221> SITE

<222> (286)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (287)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (291)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (294)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1071

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ser | Arg | Leu | Cys | Leu | Leu | Lys | Gln | Tyr | Leu | Phe | Thr | Met | Lys | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Pro | Glu | Phe | Gln | Ser | Leu | Phe | Thr | Glu | Gly | Leu | Lys | Ser | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Glu | Leu | Phe | Val | Lys | Glu | Asn | His | Glu | Leu | Arg | Ile | Ala | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Arg | Asp | Leu | Leu | Asn | Gly | Val | Lys | Pro | Gln | Asp | Ile | Asp | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Thr | Ala | Thr | Pro | Thr | Gln | Met | Lys | Glu | Met | Phe | Gln | Ser | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Arg | Met | Ile | Asn | Asn | Arg | Gly | Glu | Lys | His | Gly | Thr | Ile | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Leu | His | Glu | Glu | Asn | Phe | Glu | Ile | Thr | Thr | Leu | Arg | Ile | Asp |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Thr | Asp | Gly | Arg | His | Ala | Glu | Val | Glu | Phe | Thr | Thr | Asp | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Lys | Asp | Ala | Glu | Arg | Arg | Asp | Leu | Thr | Ile | Asn | Ser | Met | Phe | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Phe | Asp | Gly | Thr | Leu | Phe | Asp | Tyr | Phe | Asn | Gly | Tyr | Glu | Asp | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

1061

Lys Asn Lys Lys Val Arg Phe Val Gly His Ala Lys Gln Arg Ile Gln
165 170 175

Glu Asp Tyr Leu Arg Ile Leu Arg Tyr Phe Arg Phe Tyr Gly Arg Ile
180 185 190

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asp | Lys | Pro | Gly | Asp | His | Asp | Pro | Glu | Thr | Leu | Glu | Ala | Ile | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Glu Asn Ala Lys Gly Leu Ala Gly Ile Ser Gly Glu Arg Ile Trp Val
210 215 220

Glu Leu Lys Lys Ile Leu Val Gly Asn His Val Asn His Leu Ile His
225 230 235 240

Leu Ile Tyr Asp Leu Asp Val Ala Pro Tyr Ile Gly Leu Pro Ala Asn
245 250 255

Ala Ser Leu Glu Glu Phe Asp Lys Val Ser Lys Asn Val Asp Gly Phe
260 265 270

Ser Pro Lys Pro Val Thr Leu Leu Ala Ser Leu Phe Lys Xaa Xaa Asp
275 280 285

Asp Val Xaa Lys Leu Xaa Leu Arg Leu Lys Ile Ala Lys Glu Glu Lys
290 295 300

Asn Leu Gly Leu Phe Ile Val Lys Asn Arg Lys Asp Leu Ile Lys Ala
305 310 315 320

Thr Asp Ser Ser Asp Pro Leu Lys Pro Tyr Gln Asp Phe Ile Ile Asp
325 330 335

Ser Arg Glu Pro Asp Ala His Ser Cys Met
340 345

<210> 1072

<211> 404

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

$\langle 222 \rangle$ (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1062

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1072

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Ser | Leu | Asn | Leu | Asp | Leu | Thr | Pro | Arg | Met | Leu | Arg | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Arg | Pro | Cys | Thr | Leu | Ala | Leu | Leu | Val | Gly | Ser | Gln | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Met | Met | Tyr | Leu | Ser | Leu | Gly | Gly | Phe | Arg | Ser | Leu | Ser | Ala | Leu |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Arg | Asp | Gln | Gly | Pro | Thr | Phe | Asp | Tyr | Ser | His | Pro | Arg | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Ser | Asn | Leu | Ser | His | Leu | Pro | Gly | Ala | Pro | Xaa | Gly | Pro | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Gln | Gly | Leu | Pro | Tyr | Cys | Pro | Glu | Arg | Ser | Pro | Leu | Leu | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Val | Ser | Val | Ser | Phe | Ser | Pro | Val | Pro | Ser | Leu | Ala | Glu | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Glu | Arg | Asn | Pro | Arg | Val | Glu | Pro | Gly | Gly | Arg | Tyr | Arg | Pro | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Glu | Pro | Arg | Ser | Arg | Thr | Ala | Ile | Ile | Val | Pro | His | Arg | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | His | His | Leu | Arg | Leu | Leu | Leu | Tyr | His | Leu | His | Pro | Phe | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Gln | Gln | Leu | Ala | Tyr | Gly | Ile | Tyr | Val | Ile | His | Gln | Ala | Gly |
| | | | 165 | | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Thr | Phe | Asn | Arg | Ala | Lys | Leu | Leu | Asn | Val | Gly | Val | Arg | Glu |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Arg | Asp | Glu | Glu | Trp | Asp | Cys | Leu | Phe | Leu | His | Asp | Val | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Pro | Glu | Asn | Asp | His | Asn | Leu | Tyr | Val | Cys | Asp | Pro | Arg | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | His | Val | Ala | Val | Ala | Met | Asn | Lys | Phe | Gly | Tyr | Ser | Leu | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Gln | Tyr | Phe | Gly | Gly | Val | Ser | Ala | Leu | Thr | Pro | Asp | Gln | Tyr |
| | | | 245 | | | | | | 250 | | | | | 255 | |

1063

Leu Lys Met Asn Gly Phe Pro Asn Glu Tyr Trp Gly Trp Gly Gly Glu
 260 265 270

Asp Asp Asp Ile Ala Thr Arg Val Arg Leu Ala Gly Met Lys Ile Ser
 275 280 285

Arg Pro Pro Thr Ser Val Gly His Tyr Lys Met Val Lys His Arg Gly
 290 295 300

Asp Lys Gly Asn Glu Glu Asn Pro His Arg Phe Asp Leu Leu Val Arg
 305 310 315 320

Thr Gln Asn Ser Trp Thr Gln Asp Gly Met Asn Ser Leu Thr Tyr Gln
 325 330 335

Leu Leu Ala Arg Glu Leu Gly Pro Leu Tyr Thr Asn Ile Thr Ala Asp
 340 345 350

Ile Gly Thr Asp Pro Arg Gly Pro Arg Ala Pro Ser Gly Pro Arg Tyr
 355 360 365

Pro Pro Gly Ser Ser Gln Ala Phe Arg Gln Glu Met Leu Gln Arg Arg
 370 375 380

Pro Pro Ala Arg Pro Gly Pro Leu Ser Thr Ala Asn His Thr Ala Leu
 385 390 395 400

Arg Gly Ser His

<210> 1073

<211> 217

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1073

Asn Lys Glu Gln Leu Met Asp Lys Ser Gly Ile Asp Ser Leu Asp His
 1 5 10 15

Val Thr Ser Asp Ala Val Glu Leu Ala Asn Arg Ser Asp Asn Ser Ser
 20 25 30

Asp Ser Ser Leu Phe Lys Thr Gln Cys Ile Pro Tyr Ser Pro Lys Gly

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 35 | | | 40 | | | 45 | | | | | | | | | |
| Glu | Lys | Arg | Asn | Pro | Ile | Arg | Lys | Phe | Val | Arg | Thr | Pro | Glu | Ser | Val |
| 50 | | | 55 | | | 60 | | | | | | | | | |
| His | Ala | Ser | Xaa | Ser | Ser | Ser | Asp | Ser | Ser | Phe | Glu | Pro | Ile | Pro | Leu |
| 65 | | | 70 | | | 75 | | | 80 | | | | | | |
| Thr | Ile | Lys | Ala | Ile | Phe | Glu | Arg | Phe | Lys | Asn | Arg | Lys | Lys | Arg | Tyr |
| 85 | | | 90 | | | 95 | | | | | | | | | |
| Lys | Lys | Lys | Lys | Lys | Arg | Arg | Tyr | Gln | Pro | Thr | Gly | Arg | Pro | Arg | Gly |
| 100 | | | 105 | | | 110 | | | | | | | | | |
| Arg | Pro | Glu | Gly | Arg | Arg | Asn | Pro | Ile | Tyr | Ser | Leu | Ile | Asp | Lys | Lys |
| 115 | | | 120 | | | 125 | | | | | | | | | |
| Lys | Gln | Phe | Arg | Ser | Arg | Gly | Ser | Gly | Phe | Pro | Phe | Leu | Glu | Ser | Glu |
| 130 | | | 135 | | | 140 | | | | | | | | | |
| Asn | Glu | Lys | Asn | Ala | Pro | Trp | Arg | Lys | Ile | Leu | Thr | Phe | Glu | Gln | Ala |
| 145 | | | 150 | | | 155 | | | 160 | | | | | | |
| Val | Ala | Arg | Gly | Phe | Phe | Asn | Tyr | Ile | Glu | Lys | Leu | Lys | Tyr | Glu | His |
| 165 | | | 170 | | | 175 | | | | | | | | | |
| His | Leu | Lys | Glu | Ser | Leu | Lys | Gln | Met | Asn | Val | Gly | Glu | Asp | Leu | Glu |
| 180 | | | 185 | | | 190 | | | | | | | | | |
| Asn | Glu | Asp | Phe | Asp | Ser | Arg | Arg | Tyr | Lys | Phe | Leu | Asp | Asp | Asp | Gly |
| 195 | | | 200 | | | 205 | | | | | | | | | |
| Ser | Ile | Ser | Pro | Ile | Glu | Glu | Ser | Thr | | | | | | | |
| 210 | | | 215 | | | | | | | | | | | | |

<223> Xaa equals any of the naturally occurring L-amino acids

1065

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1074

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | His | Tyr | Arg | Ala | Lys | Leu | Val | Arg | Leu | Pro | Gly | Thr | Gly | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Arg | Val | Asp | Pro | Arg | Val | Arg | Glu | Gln | Pro | Ser | Pro | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Pro | Gly | Gln | Leu | Asn | Ser | Cys | Gln | Asp | Val | Leu | Pro | Ala | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Ala | Val | Pro | Thr | Pro | Thr | Gln | Val | Ser | Leu | Thr | Gln | Val | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Glu | Pro | Ser | Thr | Val | Ser | Ala | Ser | Ser | Phe | Leu | Trp | Leu | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Leu | Trp | Gly | Leu | Trp | Pro | Ser | Ser | Glu | Gly | Gly | Cys | Phe | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | His | His | Arg | Arg | His | His | Arg | Cys | Arg | Arg | Gln | Arg | Xaa | Asn | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asp | Arg | Ala | Val | Val | Ser | Lys | Ala | Xaa | Xaa | Leu | Xaa | Ala | Ala | Xaa |
| | | | 115 | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Trp | Gly | Leu | Leu | Leu | Ile | Gln | Ile | Leu | Met | Leu | Arg | Gln | Ala | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Xaa | Asn | Lys | Asn | Ser | Gln | Glu | Ala | Lys | Asn | Ser | Pro | Ile | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

1066

Lys

<210> 1075

<211> 221

<212> PRT

<213> Homo sapiens

<400> 1075

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ser | Trp | His | Ala | Arg | Tyr | Thr | Val | Leu | Thr | Tyr | Leu | Gln | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Val | Phe | Tyr | Asn | Leu | Phe | Ile | Phe | Leu | Asn | Asn | Glu | Asp | Ala | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Asp | Ile | Arg | Trp | Leu | Val | Ile | Ser | Leu | Leu | Glu | Asp | Glu | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Val | Arg | Glu | Met | Ala | Ala | Thr | Thr | Leu | Ser | Gly | Leu | Leu | Gln | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Phe | Leu | Thr | Met | Asp | Ser | Pro | Met | Gln | Ile | His | Phe | Glu | Gln | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Cys | Lys | Thr | Lys | Leu | Pro | Lys | Lys | Arg | Lys | Arg | Asp | Pro | Gly | Ser | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Asp | Thr | Ile | Pro | Ser | Ala | Glu | Leu | Val | Lys | Arg | His | Ala | Gly | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Gly | Leu | Gly | Ala | Cys | Val | Leu | Ser | Ser | Pro | Tyr | Asp | Val | Pro | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Trp | Met | Pro | Gln | Leu | Leu | Met | Asn | Leu | Ser | Ala | His | Leu | Asn | Asp | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Pro | Ile | Glu | Met | Thr | Val | Lys | Lys | Thr | Leu | Ser | Asn | Phe | Arg | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Thr | Met | Thr | Thr | Gly | Arg | Asn | Ile | Asn | Ser | Asn | Ser | Leu | Met | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asn | Cys | Leu | Phe | Ser | Pro | Ile | Phe | Leu | Cys | His | His | Ala | Ile | Met | His |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Lys | Met | Thr | Ser | Pro | His | Phe | Arg | Leu | Phe | Ser | Ser | Lys | Ile | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |

1067

His Pro Gln Val Pro Ser Val Val Ala Leu Cys Lys Phe
 210 215 220

<210> 1076

<211> 166

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (163)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (166)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1076

Ala Arg Gly Ala Arg Val Arg Ala Cys Ala Ser Leu Gly Ser Trp Arg
 1 5 10 15

Gly Pro Arg Gly Glu Gly Trp Lys Met Ser Met Asp Val Thr Phe Leu
 20 25 30

Gly Thr Gly Ala Ala Tyr Pro Ser Pro Thr Arg Gly Ala Ser Ala Val
 35 40 45

Val Leu Arg Cys Glu Gly Glu Xaa Trp Leu Phe Asp Cys Gly Glu Gly
 50 55 60

Thr Gln Thr Gln Leu Met Lys Ser Gln Leu Lys Ala Gly Arg Ile Thr
 65 70 75 80

Lys Ile Phe Ile Thr His Leu His Gly Asp His Phe Phe Gly Leu Pro
 85 90 95

Gly Leu Leu Cys Thr Ile Ser Leu Gln Ser Gly Ser Met Val Ser Lys
 100 105 110

1068

Gln Pro Ile Glu Ile Tyr Gly Pro Val Gly Phe Gly Thr Leu Ser Gly
 115 120 125

Glu Pro Trp Asn Ser Leu Xaa Arg Glu Leu Val Phe His Tyr Val Val
 130 135 140

His Glu Leu Val Pro Thr Ala Asp Gln Cys Pro Ala Glu Gly Thr Lys
 145 150 155 160

Arg Ile Xaa Ala Cys Xaa
 165

<210> 1077

<211> 239

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1077

Gly Leu Arg Ala Leu Ser Gln His Thr Asp Leu Ser Pro Leu Ser Pro
 1 5 10 15

Lys Thr Pro Ala Pro Ser Met Arg Xaa Lys Met Gly Asn Gly Thr Glu
 20 25 30

Glu Asp Tyr Asn Phe Val Phe Lys Val Val Leu Ile Gly Glu Ser Gly
 35 40 45

Val Gly Lys Thr Asn Leu Leu Ser Arg Phe Thr Arg Asn Glu Phe Ser
 50 55 60

His Asp Ser Arg Thr Thr Ile Gly Val Glu Phe Ser Thr Arg Thr Val
 65 70 75 80

Met Leu Gly Thr Ala Ala Val Lys Ala Gln Ile Trp Asp Thr Ala Gly
 85 90 95

Leu Glu Arg Tyr Arg Ala Ile Thr Ser Ala Tyr Tyr Arg Gly Ala Val
 100 105 110

Gly Ala Leu Leu Val Phe Asp Leu Thr Lys His Gln Thr Tyr Ala Val
 115 120 125

Val Glu Arg Trp Leu Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile

1069

130 135 140
 Val Val Met Leu Val Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu
 145 150 155 160
 Val Pro Thr Glu Glu Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu
 165 170 175
 Phe Leu Glu Thr Ser Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe
 180 185 190
 Glu Thr Val Leu Lys Glu Ile Phe Ala Lys Val Ser Lys Gln Arg Gln
 195 200 205
 Asn Ser Ile Arg Thr Asn Ala Ile Thr Ser Gly Ser Ala Gln Ala Gly
 210 215 220
 Gln Glu Pro Gly Pro Gly Glu Lys Arg Ala Cys Cys Ile Ser Leu
 225 230 235

<210> 1078

<211> 171

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1078

Ile Leu Lys Gly Ser Ser Gly Ser Val Trp Leu Arg Asn Leu Gln Leu
 1 5 10 15
 Gly Leu Phe Gly Thr Ala Leu Gly Leu Val Gly Leu Trp Trp Ala Glu
 20 25 30
 Gly Thr Ala Val Ala Thr Arg Gly Phe Phe Phe Gly Tyr Thr Pro Ala
 35 40 45
 Val Trp Gly Val Val Leu Asn Gln Ala Phe Gly Gly Leu Leu Val Ala
 50 55 60
 Val Val Val Lys Tyr Ala Asp Asn Ile Leu Lys Gly Phe Ala Thr Ser
 65 70 75 80
 Leu Ser Ile Val Leu Ser Thr Val Ala Ser Ile Arg Leu Phe Gly Phe
 85 90 95

1070

His Val Asp Pro Leu Phe Ala Leu Gly Ala Gly Leu Val Ile Gly Ala
 100 105 110
 Val Tyr Leu Tyr Ser Leu Pro Arg Gly Ala Xaa Lys Ala Ile Ala Ser
 115 120 125
 Ala Ser Ala Ser Ala Ser Gly Pro Cys Val His Gln Gln Pro Pro Gly
 130 135 140
 Gln Pro Pro Pro Pro Gln Leu Ser Ser His Arg Gly Asp Leu Ile Thr
 145 150 155 160
 Glu Pro Phe Leu Pro Lys Ser Val Leu Val Lys
 165 170

<210> 1079

<211> 141

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1079

Arg Arg Val Cys His Ser Ser Pro His Leu Ser Ser Pro Arg Ala Ala
 1 5 10 15
 Cys Glu Gln Gln Ala Val Ala Leu Thr Leu Gln Glu Asp Arg Ala Ser
 20 25 30
 Leu Thr Leu Ser Gly Gly Pro Ser Ala Leu Ala Phe Asp Leu Ser Lys
 35 40 45
 Val Pro Gly Pro Glu Ala Ala Pro Arg Leu Xaa Ala Leu Thr Leu Gly
 50 55 60
 Leu Ala Lys Arg Val Trp Ser Leu Glu Arg Arg Leu Ala Ala Ala Glu
 65 70 75 80
 Glu Thr Ala Val Ser Pro Arg Lys Ser Pro Arg Pro Ala Gly Pro Gln
 85 90 95
 Leu Phe Leu Pro Asp Pro Asp Pro Gln Arg Gly Gly Pro Gly Pro Gly
 100 105 110
 Val Arg Arg Arg Cys Pro Gly Glu Ser Leu Ile Asn Pro Gly Phe Lys
 115 120 125

1071

Ser Lys Lys Pro Ala Gly Gly Val Asp Phe Asp Glu Thr
 130 135 140

<210> 1080

<211> 359

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1080

Ala Val Glu Ser Arg Xaa Pro Gly Trp Asn His His Gly Ile Gln Phe
 1 5 10 15

Pro Cys Gly Ser Val Trp Leu Glu His Ala Ile Ala Met Ile Cys Gly
 20 25 30

Asn Val Cys Leu Trp Lys Gly Ala Pro Thr Thr Ser Leu Ile Ser Val
 35 40 45

Ala Val Thr Lys Ile Ile Ala Lys Val Leu Glu Asp Asn Lys Leu Pro
 50 55 60

Gly Ala Ile Cys Ser Leu Thr Cys Gly Gly Ala Asp Ile Gly Thr Ala
 65 70 75 80

Met Ala Lys Asp Glu Arg Val Asn Leu Leu Ser Phe Thr Gly Ser Thr
 85 90 95

Gln Val Gly Lys Gln Val Gly Leu Met Val Gln Glu Arg Phe Gly Arg
 100 105 110

Ser Leu Leu Glu Leu Gly Gly Asn Asn Ala Ile Ile Ala Phe Glu Asp
 115 120 125

Ala Asp Leu Ser Leu Val Val Pro Ser Ala Leu Phe Ala Ala Val Gly
 130 135 140

Thr Ala Gly Gln Arg Cys Thr Thr Ala Arg Arg Leu Phe Ile His Glu
 145 150 155 160

Ser Ile His Asp Glu Val Val Asn Arg Leu Lys Lys Ala Tyr Ala Gln
 165 170 175

Ile Arg Val Gly Asn Pro Trp Asp Pro Asn Val Leu Tyr Gly Pro Leu

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 180 | | | | | | | 185 | | | | | 190 | | | | | |
| His | Thr | Lys | Gln | Ala | Val | Ser | Met | Phe | Leu | Gly | Ala | Val | Glu | Glu | Ala | | |
| 195 | | | | | | | 200 | | | | | 205 | | | | | |
| Lys | Lys | Glu | Gly | Gly | Thr | Val | Val | Tyr | Gly | Gly | Lys | Val | Met | Asp | Arg | | |
| 210 | | | | | | | 215 | | | | | 220 | | | | | |
| Pro | Gly | Asn | Tyr | Val | Glu | Pro | Thr | Ile | Val | Thr | Gly | Leu | Gly | His | Asp | | |
| 225 | | | | | | | 230 | | | | | 235 | | | | 240 | |
| Ala | Ser | Ile | Ala | His | Thr | Glu | Thr | Phe | Ala | Pro | Ile | Leu | Tyr | Val | Phe | | |
| 245 | | | | | | | 250 | | | | | 255 | | | | | |
| Lys | Phe | Lys | Asn | Glu | Glu | Glu | Val | Phe | Ala | Trp | Asn | Asn | Glu | Val | Lys | | |
| 260 | | | | | | | 265 | | | | | 270 | | | | | |
| Gln | Gly | Leu | Ser | Ser | Ser | Ile | Phe | Thr | Lys | Asp | Leu | Gly | Arg | Ile | Phe | | |
| 275 | | | | | | | 280 | | | | | 285 | | | | | |
| Arg | Trp | Leu | Gly | Pro | Lys | Gly | Ser | Asp | Cys | Gly | Ile | Val | Asn | Val | Asn | | |
| 290 | | | | | | | 295 | | | | | 300 | | | | | |
| Ile | Pro | Thr | Ser | Gly | Ala | Glu | Ile | Gly | Gly | Ala | Phe | Gly | Gly | Glu | Lys | | |
| 305 | | | | | | | 310 | | | | | 315 | | | | 320 | |
| His | Thr | Gly | Gly | Gly | Arg | Glu | Ser | Gly | Ser | Asp | Ala | Trp | Lys | Gln | Tyr | | |
| 325 | | | | | | | 330 | | | | | 335 | | | | | |
| Met | Arg | Arg | Ser | Thr | Cys | Thr | Ile | Asn | Tyr | Ser | Lys | Asp | Leu | Pro | Leu | | |
| 340 | | | | | | | 345 | | | | | 350 | | | | | |
| Ala | Gln | Gly | Ile | Lys | Phe | Gln | | | | | | | | | | | |
| 355 | | | | | | | | | | | | | | | | | |

<400> 1081

Ala Val Pro Leu Leu Gly Arg Pro Thr Arg Pro Val Gly Pro Arg Ala
1 5 10 15

Ala Leu Thr Met Thr Gln Gln Gly Ala Ala Leu Gln Asn Tyr Asn Asn
20 25 30

Glu Leu Val Lys Cys Ile Glu Glu Leu Cys Gln Lys Arg Glu Glu Leu
35 40 45

1073

Cys Arg Gln Ile Gln Glu Glu Glu Asp Glu Lys Gln Arg Leu Gln Asn
 50 55 60
 Glu Val Arg Gln Leu Thr Glu Lys Leu Ala Arg Val Asn Glu Asn Leu
 65 70 75 80
 Ala Arg Lys Ile Ala Ser Arg Asn Glu Phe Asp Arg Thr Ile Ala Glu
 85 90 95
 Thr Glu Ala Ala Tyr Leu Lys Ile Leu Glu Ser Ser Gln Thr Leu Leu
 100 105 110
 Ser Val Leu Lys Arg Glu Ala Gly Asn Leu Thr Lys Ala Thr Ala Pro
 115 120 125
 Asp Gln Lys Ser Ser Gly Gly Arg Asp Ser
 130 135

<210> 1082

<211> 339

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1082

Ser Pro Ile Ser Asn Cys Glu Ile Thr Ile Thr Asp Pro Gly Lys Phe
 1 5 10 15
 Tyr Asn Ser Asn Ser Val Phe Ser Arg Gly Asn Met Ala Lys Val Phe
 20 25 30
 Ser Phe Ile Leu Val Thr Thr Ala Leu Xaa Met Gly Arg Glu Ile Ser
 35 40 45
 Ala Leu Glu Asp Cys Ala Gln Glu Gln Met Arg Leu Arg Ala Gln Val
 50 55 60
 Arg Leu Leu Glu Thr Arg Val Lys Gln Gln Gln Val Lys Ile Lys Gln
 65 70 75 80
 Leu Leu Gln Glu Asn Glu Val Gln Phe Leu Asp Lys Gly Asp Glu Asn
 85 90 95
 Thr Val Val Asp Leu Gly Ser Lys Arg Gln Tyr Ala Asp Cys Ser Glu

1074

| 100 | | | | | 105 | | | | | 110 | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Asn | Asp | Gly | Tyr | Lys | Leu | Ser | Gly | Phe | Tyr | Lys | Ile | Lys | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Gln | Ser | Pro | Ala | Glu | Phe | Ser | Val | Tyr | Cys | Asp | Met | Ser | Asp | Gly |
| | | 130 | | | | | 135 | | | | | 140 | | | |
| Gly | Gly | Trp | Thr | Val | Ile | Gln | Arg | Arg | Ser | Asp | Gly | Ser | Glu | Asn | Phe |
| | | 145 | | | | | 150 | | | | | 155 | | | 160 |
| Asn | Arg | Gly | Trp | Lys | Asp | Tyr | Glu | Asn | Gly | Phe | Gly | Asn | Phe | Val | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Lys | His | Gly | Glu | Tyr | Trp | Leu | Gly | Asn | Lys | Asn | Leu | His | Phe | Leu | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Gln | Glu | Asp | Tyr | Thr | Leu | Lys | Ile | Asp | Leu | Ala | Asp | Phe | Glu | Lys |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Asn | Ser | Arg | Tyr | Ala | Gln | Tyr | Lys | Asn | Phe | Lys | Val | Gly | Asp | Glu | Lys |
| | | | 210 | | | | 215 | | | | | 220 | | | |
| Asn | Phe | Tyr | Glu | Leu | Asn | Ile | Gly | Glu | Tyr | Ser | Gly | Thr | Ala | Gly | Asp |
| | | | 225 | | | | 230 | | | | | 235 | | | 240 |
| Ser | Leu | Ala | Gly | Asn | Phe | His | Pro | Glu | Val | Gln | Trp | Trp | Ala | Ser | His |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Gln | Arg | Met | Lys | Phe | Ser | Thr | Trp | Asp | Arg | Asp | His | Asp | Asn | Tyr | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Asn | Cys | Ala | Glu | Glu | Asp | Gln | Ser | Gly | Trp | Trp | Phe | Asn | Arg | Cys |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| His | Ser | Ala | Asn | Leu | Asn | Gly | Val | Tyr | Tyr | Ser | Gly | Pro | Tyr | Thr | Ala |
| | | | 290 | | | | 295 | | | | | 300 | | | |
| Lys | Thr | Asp | Asn | Gly | Ile | Val | Trp | Tyr | Thr | Trp | His | Gly | Trp | Trp | Tyr |
| | | | 305 | | | | 310 | | | | | 315 | | | 320 |
| Ser | Leu | Lys | Ser | Val | Val | Met | Lys | Ile | Arg | Pro | Asn | Asp | Phe | Ile | Pro |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Asn Val Ile | | | | | | | | | | | | | | | |

<210> 1083

<211> 256

1075

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1083

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Leu | Asn | Gly | Pro | Ala | Asp | Phe | Glu | Lys | Arg | Val | Glu | Gly | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Pro | Arg | Ala | Pro | Leu | Val | Asn | Ala | Leu | Leu | Thr | Ala | Pro | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Ile | Tyr | Thr | Gly | Cys | Met | Val | Cys | Val | Phe | Leu | Phe | Cys | Phe |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Pro | Ala | Gly | Leu | Phe | Xaa | Gly | Trp | Gly | Gly | Gly | Phe | Ala | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asp | Asp | Asp | Ser | Arg | Ala | Ser | Thr | Ser | Ser | Ser | Ser | Ser | Ser | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Gln | Gln | Thr | Glu | Lys | Glu | Thr | Asn | Thr | Pro | Lys | Lys | Lys | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Val | Ser | Met | Ser | Lys | Asn | Ser | Lys | Leu | Leu | Ser | Thr | Ser | Ala |
| | | 100 | | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Ile | Gln | Lys | Glu | Leu | Ala | Asp | Ile | Thr | Leu | Asp | Pro | Pro | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Cys | Ser | Ala | Gly | Pro | Lys | Gly | Asp | Asn | Ile | Tyr | Glu | Trp | Arg | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ile | Leu | Gly | Pro | Pro | Gly | Ser | Val | Tyr | Glu | Gly | Gly | Val | Phe | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Ile | Thr | Phe | Thr | Pro | Glu | Tyr | Pro | Phe | Lys | Pro | Pro | Lys | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Phe | Arg | Thr | Arg | Ile | Tyr | His | Cys | Asn | Ile | Asn | Ser | Gln | Gly | Val |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Cys | Leu | Asp | Ile | Leu | Lys | Asp | Asn | Trp | Ser | Pro | Ala | Leu | Thr | Ile |
| | 195 | | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Val | Leu | Leu | Ser | Ile | Cys | Ser | Leu | Leu | Thr | Asp | Cys | Asn | Pro |
| | 210 | | | | | 215 | | | | | | 220 | | | |

1076

Ala Asp Pro Leu Val Gly Ser Ile Ala Thr Gln Tyr Met Thr Asn Arg
 225 230 235 240

Ala Glu His Asp Arg Met Ala Arg Gln Trp Thr Lys Arg Tyr Ala Thr
 245 250 255

<210> 1084

<211> 176

<212> PRT

<213> Homo sapiens

<400> 1084

Glu Lys Cys Val Ser Phe Ser Ala Val Leu Lys Ser Leu Ser Pro Val
 1 5 10 15

Asp Pro Val Glu Pro Ile Ser Asn Ser Glu Pro Ser Met Asn Ser Asp
 20 25 30

Met Gly Lys Val Ser Lys Asn Asp Thr Glu Glu Glu Ser Asn Lys Ser
 35 40 45

Ala Thr Thr Asp Asn Glu Ile Ser Arg Thr Glu Tyr Leu Cys Glu Asn
 50 55 60

Ser Leu Glu Gly Lys Asn Lys Asp Asn Ser Ser Asn Glu Val Phe Pro
 65 70 75 80

Gln Gly Ala Glu Glu Arg Met Cys Tyr Gln Cys Glu Ser Glu Asp Glu
 85 90 95

Pro Gln Ala Asp Gly Ser Gly Leu Thr Thr Ala Pro Pro Thr Pro Arg
 100 105 110

Asp Ser Leu Gln Pro Ser Ile Lys Gln Arg Leu Ala Arg Leu Gln Leu
 115 120 125

Ser Pro Asp Phe Thr Phe Thr Ala Gly Leu Ala Ala Glu Val Ala Ala
 130 135 140

Arg Ser Leu Ser Phe Thr Thr Met Gln Glu Gln Thr Phe Gly Asp Glu
 145 150 155 160

Glu Glu Glu Gln Ile Ile Glu Glu Asn Lys Asn Glu Ile Glu Glu Lys
 165 170 175

1077

<210> 1085

<211> 220

<212> PRT

<213> Homo sapiens

<400> 1085

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Arg | Lys | Ser | Arg | Pro | Ala | Asn | His | Cys | Val | Tyr | Phe | Tyr | Gly | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ile | Ser | Phe | Ser | Cys | His | Glu | Thr | Ser | Arg | Phe | Ser | Ala | Ile | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Asp | Gly | Thr | Trp | Ser | Pro | Arg | Thr | Pro | Ser | Cys | Gly | Asp | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asn | Phe | Pro | Pro | Lys | Ile | Ala | His | Gly | His | Tyr | Lys | Gln | Ser | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Tyr | Ser | Phe | Phe | Lys | Glu | Glu | Ile | Ile | Tyr | Glu | Cys | Asp | Lys | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ile | Leu | Val | Gly | Gln | Ala | Lys | Leu | Ser | Cys | Ser | Tyr | Ser | His | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Pro | Ala | Pro | Gln | Cys | Lys | Ala | Leu | Cys | Arg | Lys | Pro | Glu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Gly | Arg | Leu | Ser | Val | Asp | Lys | Asp | Gln | Tyr | Val | Glu | Pro | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Thr | Ile | Gln | Cys | Asp | Ser | Gly | Tyr | Gly | Val | Val | Gly | Pro | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Thr | Cys | Ser | Gly | Asn | Arg | Thr | Trp | Tyr | Pro | Glu | Val | Pro | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Glu | Trp | Glu | Thr | Pro | Glu | Gly | Cys | Glu | Gln | Val | Leu | Thr | Gly | Lys |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Met | Gln | Cys | Leu | Pro | Asn | Pro | Glu | Asp | Val | Lys | Met | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Val | Tyr | Lys | Leu | Ser | Leu | Glu | Ile | Glu | Gln | Leu | Glu | Leu | Gln | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ser | Ala | Arg | Gln | Ser | Thr | Leu | Asp | Lys | Glu | Leu |
| 210 | | | | | | 215 | | | | | 220 |

1078

<210> 1086

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1086

```

Val Lys Pro Ser Gly Gly Glu Gly Asp Val Ala Gln Arg Pro Arg Asp
 1             5             10             15

Arg Leu Ser Ser Arg Leu Leu Gly Ser Pro Ala Trp Arg Arg Arg Leu
          20             25             30

Met Thr Glu Gly Pro Leu Ala Gly Ala Pro Val Cys Ile Phe Glu Gly
      35             40             45

Pro Gly Pro Pro Gly Gly Ala Gly Ser Tyr Ser Trp Gly Leu Gly Phe
      50             55             60

Arg Arg Ala Gly Gly Gly Ala Gly Leu Lys Ala Ala Leu Val Tyr Gly
      65             70             75             80

Val Val Thr Gln Ser His Trp Gln Arg Trp Gly Leu Ala Val Ala Trp
          85             90             95

Gln Tyr Leu Gly Ile Ala Ser Thr Gly Asn Lys Asp Gly His Glu Gln
      100             105             110

Ser Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
      115             120             125

Lys Lys Lys Lys Lys
      130

```

<210> 1087

<211> 289

<212> PRT

<213> Homo sapiens

<400> 1087

```

Ile Leu Thr Tyr Lys Met Lys Gln Asp Ala Ser Arg Asn Ala Ala Tyr
 1             5             10             15

Thr Val Asp Cys Glu Asp Tyr Val His Val Val Glu Phe Asn Pro Phe
      20             25             30

Glu Asn Gly Asp Ser Gly Asn Leu Ile Ala Tyr Gly Gly Asn Asn Tyr

```

1079

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 35 | 40 | 45 | | | | | | | | | | | | | | | | | |
| Val | Val | Ile | Gly | Thr | Cys | Thr | Phe | Gln | Glu | Glu | Glu | Ala | Asp | Val | Glu | | | | |
| 50 | | | | | | 55 | | | | | 60 | | | | | | | | |
| Gly | Ile | Gln | Tyr | Lys | Thr | Leu | Arg | Thr | Phe | His | His | Gly | Val | Arg | Val | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | | |
| Asp | Gly | Ile | Ala | Trp | Ser | Pro | Glu | Thr | Arg | Leu | Asp | Ser | Leu | Pro | Pro | | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Val | Ile | Lys | Phe | Cys | Thr | Ser | Ala | Ala | Asp | Met | Lys | Ile | Arg | Leu | Phe | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Thr | Ser | Asp | Leu | Gln | Asp | Lys | Asn | Glu | Tyr | Lys | Val | Leu | Glu | Gly | His | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Thr | Asp | Phe | Ile | Asn | Gly | Leu | Val | Phe | Asp | Pro | Lys | Glu | Gly | Gln | Glu | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | |
| Ile | Ala | Ser | Val | Ser | Asp | Asp | His | Thr | Cys | Arg | Ile | Trp | Asn | Leu | Glu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Gly | Val | Gln | Thr | Ala | His | Phe | Val | Leu | His | Ser | Pro | Gly | Met | Ser | Val | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | |
| Cys | Trp | His | Pro | Glu | Glu | Thr | Phe | Lys | Leu | Met | Val | Ala | Glu | Lys | Asn | | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | | |
| Gly | Thr | Ile | Arg | Phe | Tyr | Asp | Leu | Leu | Ala | Gln | Gln | Ala | Ile | Leu | Ser | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | | |
| Leu | Glu | Ser | Glu | Gln | Val | Pro | Leu | Met | Ser | Ala | His | Trp | Cys | Leu | Lys | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | |
| Asn | Thr | Phe | Lys | Val | Gly | Ala | Val | Ala | Gly | Asn | Asp | Trp | Leu | Ile | Trp | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | | | | | |
| Asp | Ile | Thr | Arg | Ser | Ser | Tyr | Pro | Gln | Asn | Lys | Arg | Pro | Val | His | Met | | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | |
| Asp | Arg | Ala | Cys | Leu | Phe | Arg | Trp | Ser | Thr | Ile | Ser | Glu | Asn | Leu | Phe | | | | |
| | | 260 | | | | | | 265 | | | | | 270 | | | | | | |
| Ala | Thr | Thr | Gly | Tyr | Pro | Gly | Lys | Met | Gln | Ala | Ser | Phe | Lys | Phe | Ile | | | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | | | |
| Ile | | | | | | | | | | | | | | | | | | | |

1080

<210> 1088

<211> 836

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (677)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1088

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Arg | Pro | Asn | Trp | Thr | Gly | Met | Thr | Asn | Leu | Leu | Asp | Ile | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Ser | Ser | Leu | Ser | Asp | Thr | Met | Ile | Met | Asp | Ser | Ile | Ala | Ala |
| | | | | 20 | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Val | Leu | Pro | Asn | Arg | Leu | Leu | Val | Pro | Leu | Val | Pro | Asp | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asp | Val | Ala | Gln | Leu | Arg | Ser | Pro | Leu | Pro | Arg | Gly | Ile | Ile | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | His | Leu | Leu | Ala | Ala | Arg | Gly | Leu | Ser | Ser | Lys | Asp | Lys | Tyr | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Leu | Ile | Glu | Gly | Lys | Ser | Asp | Pro | Tyr | Ala | Leu | Val | Arg | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Gln | Thr | Phe | Cys | Ser | Arg | Val | Ile | Asp | Glu | Glu | Leu | Asn | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Trp | Gly | Glu | Thr | Tyr | Glu | Val | Met | Val | His | Glu | Val | Pro | Gly | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ile | Glu | Val | Glu | Val | Phe | Asp | Lys | Asp | Pro | Asp | Lys | Asp | Asp | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Arg | Met | Lys | Leu | Asp | Val | Gly | Lys | Val | Leu | Gln | Ala | Ser | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Asp | Trp | Phe | Pro | Leu | Gln | Gly | Gly | Gln | Gly | Gln | Val | His | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Glu | Trp | Leu | Ser | Leu | Leu | Ser | Asp | Ala | Glu | Lys | Leu | Glu | Gln |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Gln | Trp | Asn | Trp | Gly | Val | Ser | Ser | Arg | Pro | Asp | Pro | Pro | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |

1081

Ala Ala Ile Leu Val Val Tyr Leu Asp Arg Ala Gln Asp Leu Pro Leu
 210 215 220

Lys Lys Gly Asn Lys Glu Pro Asn Pro Met Val Gln Leu Ser Ile Gln
 225 230 235 240

Asp Val Thr Gln Glu Ser Lys Ala Val Tyr Ser Thr Asn Cys Pro Val
 245 250 255

Trp Glu Glu Ala Phe Arg Phe Phe Leu Gln Asp Pro Gln Ser Gln Glu
 260 265 270

Leu Asp Val Gln Val Lys Asp Asp Ser Arg Ala Leu Thr Leu Gly Ala
 275 280 285

Leu Thr Leu Pro Leu Ala Arg Leu Leu Thr Ala Pro Glu Leu Ile Leu
 290 295 300

Asp Gln Trp Phe Gln Leu Ser Ser Ser Gly Pro Asn Ser Arg Leu Tyr
 305 310 315 320

Met Lys Leu Val Met Arg Ile Leu Tyr Leu Asp Ser Ser Glu Ile Cys
 325 330 335

Phe Pro Thr Val Pro Gly Cys Pro Gly Ala Trp Asp Val Asp Ser Glu
 340 345 350

Asn Pro Gln Arg Gly Ser Ser Val Asp Ala Pro Pro Arg Pro Cys His
 355 360 365

Thr Thr Pro Asp Ser Gln Phe Gly Thr Glu His Val Leu Arg Ile His
 370 375 380

Val Leu Glu Ala Gln Asp Leu Ile Ala Lys Asp Arg Phe Leu Gly Gly
 385 390 395 400

Leu Val Lys Gly Lys Ser Asp Pro Tyr Val Lys Leu Lys Leu Ala Gly
 405 410 415

Arg Ser Phe Arg Ser His Val Val Arg Glu Asp Leu Asn Pro Arg Trp
 420 425 430

Asn Glu Val Phe Glu Val Ile Val Thr Ser Val Pro Gly Gln Glu Leu
 435 440 445

Glu Val Glu Val Phe Asp Lys Asp Leu Asp Lys Asp Asp Phe Leu Gly
 450 455 460

Arg Cys Lys Val Arg Leu Thr Thr Val Leu Asn Ser Gly Phe Leu Asp
 465 470 475 480

1082

Glu Trp Leu Thr Leu Glu Asp Val Pro Ser Gly Arg Leu His Leu Arg
 485 490 495

Leu Glu Arg Leu Thr Pro Arg Pro Thr Ala Ala Glu Leu Glu Glu Val
 500 505 510

Leu Gln Val Asn Ser Leu Ile Gln Thr Gln Lys Ser Ala Glu Leu Ala
 515 520 525

Ala Ala Leu Leu Ser Ile Tyr Met Glu Arg Ala Glu Asp Leu Pro Leu
 530 535 540

Arg Lys Gly Thr Lys His Leu Ser Pro Tyr Ala Thr Leu Thr Val Gly
 545 550 555 560

Asp Ser Ser His Lys Thr Lys Thr Ile Ser Gln Thr Ser Ala Pro Val
 565 570 575

Trp Asp Glu Ser Ala Ser Phe Leu Ile Arg Lys Pro His Thr Glu Ser
 580 585 590

Leu Glu Leu Gln Val Arg Gly Glu Gly Thr Gly Val Leu Gly Ser Leu
 595 600 605

Ser Leu Pro Leu Ser Glu Leu Leu Val Ala Asp Gln Leu Cys Leu Asp
 610 615 620

Arg Trp Phe Thr Leu Ser Ser Gly Gln Gly Gln Val Leu Leu Arg Ala
 625 630 635 640

Gln Leu Gly Ile Leu Val Ser Gln His Ser Gly Val Glu Ala His Ser
 645 650 655

His Ser Tyr Ser His Ser Ser Ser Ser Leu Ser Glu Glu Pro Glu Leu
 660 665 670

Ser Gly Gly Pro Xaa His Ile Thr Ser Ser Ala Pro Glu Leu Arg Gln
 675 680 685

Arg Leu Thr His Val Asp Ser Pro Leu Glu Ala Pro Ala Gly Pro Leu
 690 695 700

Gly Gln Val Lys Leu Thr Leu Trp Tyr Tyr Ser Glu Glu Arg Lys Leu
 705 710 715 720

Val Ser Ile Val His Gly Cys Arg Ser Leu Arg Gln Asn Gly Arg Asp
 725 730 735

Pro Pro Asp Pro Tyr Val Ser Leu Leu Leu Leu Pro Asp Lys Asn Arg
 740 745 750

1083

Gly Thr Lys Arg Arg Thr Ser Gln Lys Lys Arg Thr Leu Ser Pro Glu
 755 760 765

Phe Asn Glu Arg Phe Glu Trp Glu Leu Pro Leu Asp Glu Ala Gln Arg
 770 775 780

Arg Lys Leu Asp Val Ser Val Lys Ser Asn Ser Ser Phe Met Ser Arg
 785 790 795 800

Glu Arg Glu Leu Leu Gly Lys Val Gln Leu Asp Leu Ala Glu Thr Asp
 805 810 815

Leu Ser Gln Gly Val Ala Arg Trp Tyr Asp Leu Met Asp Asn Lys Asp
 820 825 830

Lys Gly Ser Ser
 835

<210> 1089

<211> 409

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (393)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (406)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1089

Arg Ser Ser Val Ala Ser Val His Thr Trp Arg Gln Arg Arg Gln Val
 1 5 10 15

Xaa Val Phe Val Leu Pro Ser Thr Ala Asn Met Lys Arg Pro Lys Leu
 20 25 30

1084

Lys Lys Ala Ser Lys Arg Met Thr Cys His Lys Arg Tyr Lys Ile Gln
 35 40 45
 Lys Lys Val Arg Glu His His Arg Lys Leu Arg Lys Glu Ala Lys Lys
 50 55 60
 Xaa Gly His Lys Lys Pro Arg Lys Asp Pro Gly Val Pro Asn Ser Ala
 65 70 75 80
 Pro Phe Lys Glu Ala Leu Leu Arg Glu Ala Glu Leu Arg Lys Gln Arg
 85 90 95
 Leu Glu Glu Leu Lys Gln Gln Gln Lys Leu Asp Arg Gln Lys Glu Leu
 100 105 110
 Glu Lys Lys Arg Lys Leu Glu Thr Asn Pro Asp Ile Lys Pro Ser Asn
 115 120 125
 Val Glu Pro Met Glu Lys Glu Phe Gly Leu Cys Lys Thr Glu Asn Lys
 130 135 140
 Ala Lys Ser Gly Lys Gln Asn Ser Lys Lys Leu Tyr Cys Gln Glu Leu
 145 150 155 160
 Lys Lys Val Ile Glu Ala Ser Asp Val Val Leu Glu Val Leu Asp Ala
 165 170 175
 Arg Asp Pro Leu Gly Cys Arg Cys Pro Gln Val Glu Glu Ala Ile Val
 180 185 190
 Gln Ser Gly Gln Lys Lys Leu Val Leu Ile Leu Asn Lys Ser Asp Leu
 195 200 205
 Val Pro Lys Glu Asn Leu Glu Ser Trp Leu Asn Tyr Leu Lys Lys Glu
 210 215 220
 Leu Pro Thr Val Val Phe Arg Ala Ser Thr Lys Pro Lys Asp Lys Gly
 225 230 235 240
 Lys Ile Thr Lys Arg Val Lys Ala Lys Lys Asn Ala Ala Pro Phe Arg
 245 250 255
 Ser Glu Val Cys Phe Gly Lys Glu Gly Leu Trp Lys Leu Leu Gly Gly
 260 265 270
 Phe Gln Glu Thr Cys Ser Lys Ala Ile Arg Val Gly Val Ile Gly Phe
 275 280 285
 Pro Asn Val Gly Lys Ser Ser Ile Ile Asn Ser Leu Lys Gln Glu Gln
 290 295 300

1085

Met Cys Asn Val Gly Val Ser Met Gly Leu Thr Arg Ser Met Gln Val
 305 310 315 320
 Val Pro Leu Asp Lys Gln Ile Thr Ile Ile Asp Ser Pro Ser Phe Ile
 325 330 335
 Val Ser Pro Leu Asn Ser Ser Ser Ala Leu Ala Leu Arg Ser Pro Ala
 340 345 350
 Ser Ile Glu Val Val Lys Pro Met Glu Ala Ala Ser Ala Ile Leu Ser
 355 360 365
 Gln Ala Asp Ala Arg Gln Val Val Leu Lys Tyr Thr Val Pro Gly Tyr
 370 375 380
 Arg Asn Ser Leu Gly Ile Phe Tyr Xaa Ala Cys Ser Glu Lys Arg Tyr
 385 390 395 400
 Ala Pro Lys Arg Trp Xaa Pro Lys Cys
 405

<210> 1090

<211> 161

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1090

Pro Lys Asn Trp Xaa Thr Ala Arg Ala Asp His His Ala Ser Met Asn
 1 5 10 15
 Trp Val Pro Cys Gly His Ser Tyr Phe Gly Ala Thr Leu Asn Ser Phe
 20 25 30
 Ile His Val Leu Met Tyr Ser Tyr Tyr Gly Leu Ser Ser Val Pro Ser
 35 40 45
 Met Arg Pro Tyr Leu Trp Trp Xaa Glu Val His His Ser Gly Ala Ala
 50 55 60

1086

Ala Ser Val Cys Ala Asp Asn His Pro Asp Gln Leu Arg Gly His Leu
65 70 75 80

Ala Val His Ile Pro Ser Trp Leu Val Val Phe Pro Asp Trp Ile His
85 90 95

Asp Phe Pro Asp Cys Ser Leu His Lys Leu Leu His Ser Asp Leu Gln
100 105 110

Gln Glu Arg Gly Leu Pro Lys Glu Arg Pro Pro Glu Gly Pro Pro Glu
115 120 125

Trp Val His Gly Cys Cys Glu Trp Thr His Gln Gln Leu Phe Thr Pro
130 135 140

Gly Lys Gln Cys Glu Ala Lys Glu Ala Ala Glu Gly Leu Lys Ser Lys
145 150 155 160

Asn

<210> 1091

<211> 118

<212> PRT

<213> Homo sapiens

<400> 1091

Ser Lys Asn Ser Ala Arg Glu Glu Met Ala Ala Ser Ser Ser Ser Ser
1 5 10 15

Ser Ala Gly Gly Val Ser Gly Ser Ser Val Thr Gly Ser Gly Phe Ser
20 25 30

Val Ser Asp Leu Ala Pro Pro Arg Lys Ala Leu Phe Thr Tyr Pro Lys
35 40 45

Gly Ala Gly Glu Met Leu Glu Asp Gly Ser Glu Arg Phe Leu Cys Glu
50 55 60

Ser Val Phe Ser Tyr Gln Val Ala Ser Thr Leu Lys Gln Val Lys His
65 70 75 80

Asp Gln Gln Val Ala Arg Met Glu Lys Leu Ala Gly Leu Val Glu Glu
85 90 95

Leu Glu Ala Asp Glu Trp Arg Phe Lys Pro Ile Glu Gln Leu Leu Gly
100 105 110

1087

Phe Thr Pro Ser Ser Gly
115

<210> 1092

<211> 198

<212> PRT

<213> Homo sapiens

<400> 1092

Ala Pro Phe Leu Ala Ala Gly Val Ser Met Gly Gly Met Leu Leu Leu
1 5 10 15

Asn Tyr Leu Gly Lys Ile Gly Ser Lys Thr Pro Leu Met Ala Ala Ala
20 25 30

Thr Phe Ser Val Gly Trp Asn Thr Phe Ala Cys Ser Glu Ser Leu Glu
35 40 45

Lys Pro Leu Asn Trp Leu Leu Phe Asn Tyr Tyr Leu Thr Thr Cys Leu
50 55 60

Gln Ser Ser Val Asn Lys His Arg His Met Phe Val Lys Gln Val Asp
65 70 75 80

Met Asp His Val Met Lys Ala Lys Ser Ile Arg Glu Phe Asp Lys Arg
85 90 95

Phe Thr Ser Val Met Phe Gly Tyr Gln Thr Ile Asp Asp Tyr Tyr Thr
100 105 110

Asp Ala Ser Pro Ser Pro Arg Leu Lys Ser Val Gly Ile Pro Val Leu
115 120 125

Cys Leu Asn Ser Val Asp Asp Val Phe Ser Pro Ser His Ala Ile Pro
130 135 140

Ile Glu Thr Ala Lys Gln Asn Pro Asn Val Ala Leu Val Leu Thr Ser
145 150 155 160

Tyr Gly Gly His Ile Gly Phe Leu Glu Gly Ile Trp Pro Arg Gln Ser
165 170 175

Thr Tyr Met Asp Arg Val Phe Lys Gln Phe Val Gln Ala Met Val Glu
180 185 190

His Gly His Glu Leu Ser
195

1088

<210> 1093

<211> 36

<212> PRT

<213> Homo sapiens

<400> 1093

Pro Gly Trp Ser Arg Ser Pro Gly Trp Ser Arg Ser Pro Gly Trp Ser
1 5 10 15

Arg Ser Pro Asp Val Val Ile His Pro Pro Arg Pro Pro Lys Met Leu
20 25 30

Gly Leu Gln Val
35

<210> 1094

<211> 615

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (156)

1089

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1094

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Xaa | Gln | Leu | Val | Leu | Leu | Gln | Val | Pro | Val | Arg | Ile | Pro | Gly | Ser | 1 | 5 | 10 | 15 |
| Thr | His | Ala | Ser | Xaa | Asp | Ala | Trp | Val | Ala | Arg | Gln | Leu | Ala | Lys | Pro | 20 | 25 | 30 | |
| Asp | Asn | Thr | Leu | Phe | Val | Asn | Arg | Thr | Leu | Phe | Asp | Gln | Val | Leu | Glu | 35 | 40 | 45 | |
| Phe | Leu | Cys | Ser | Pro | Asp | Asp | Asp | Ser | Arg | His | Ser | Glu | Arg | Gln | Gln | 50 | 55 | 60 | |
| Val | Leu | Leu | Glu | Leu | Leu | Gln | Ala | Gly | Gly | Ile | Val | Gln | Phe | Glu | Glu | 65 | 70 | 75 | 80 |
| Ser | Arg | Leu | Ile | Arg | Met | Ala | Glu | Lys | Ala | Glu | Phe | Tyr | Gln | Ile | Cys | 85 | 90 | 95 | |
| Glu | Phe | Met | Tyr | Glu | Arg | Glu | His | Gln | Tyr | Asp | Lys | Ile | Ile | Asp | Cys | 100 | 105 | 110 | |
| Xaa | Leu | Arg | Asp | Pro | Leu | Arg | Glu | Glu | Glu | Val | Phe | Asn | Tyr | Ile | His | 115 | 120 | 125 | |
| Asn | Ile | Leu | Xaa | Ile | Pro | Gly | His | Ser | Ala | Glu | Glu | Lys | Gln | Ser | Val | 130 | 135 | 140 | |
| Trp | Gln | Lys | Ala | Met | Asp | His | Ile | Glu | Glu | Xaa | Xaa | Xaa | Leu | Lys | Pro | 145 | 150 | 155 | 160 |
| Cys | Lys | Ala | Ala | Glu | Leu | Val | Ala | Thr | His | Phe | Ser | Gly | His | Ile | Glu | 165 | 170 | 175 | |
| Thr | Val | Ile | Lys | Lys | Leu | Gln | Asn | Gln | Val | Leu | Leu | Phe | Lys | Phe | Leu | 180 | 185 | 190 | |
| Arg | Ser | Leu | Leu | Asp | Pro | Arg | Glu | Gly | Ile | His | Val | Asn | Gln | Glu | Leu | 195 | 200 | 205 | |
| Leu | Gln | Ile | Ser | Pro | Cys | Ile | Thr | Glu | Gln | Phe | Ile | Glu | Leu | Leu | Cys | 210 | 215 | 220 | |
| Gln | Phe | Asn | Pro | Thr | Gln | Val | Ile | Glu | Thr | Leu | Gln | Val | Leu | Glu | Cys | | | | |

1090

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 | | 230 | | 235 | | 240 | | | | | | | | | |
| Tyr | Arg | Leu | Glu | Glu | Thr | Ile | Gln | Ile | Thr | Gln | Lys | Tyr | Gln | Leu | His |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Val | Thr | Ala | Tyr | Leu | Leu | Glu | Lys | Lys | Gly | Asp | Ile | His | Gly | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Leu | Ile | Met | Leu | Glu | Arg | Leu | Gln | Ser | Lys | Leu | Gln | Glu | Val | Thr |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| His | Gln | Gly | Glu | Asn | Thr | Lys | Glu | Asp | Pro | Ser | Leu | Lys | Asp | Val | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Thr | Met | Val | Glu | Thr | Ile | Ala | Leu | Cys | Gln | Arg | Asn | Ser | His | Asn |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Asn | Gln | Gln | Gln | Arg | Glu | Ala | Leu | Trp | Phe | Pro | Leu | Leu | Glu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Met | Met | Ala | Pro | Gln | Lys | Leu | Ser | Ser | Ser | Ala | Ile | Pro | His | Leu | His |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Glu | Ala | Leu | Lys | Ser | Leu | Thr | Met | Gln | Val | Leu | Asn | Ser | Met | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Phe | Ile | Ala | Leu | Pro | Ser | Ile | Leu | Gln | Arg | Ile | Leu | Gln | Asp | Pro |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Val | Tyr | Gly | Lys | Gly | Lys | Leu | Gly | Glu | Ile | Gln | Gly | Leu | Ile | Leu | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Met | Leu | Asp | Thr | Phe | Asn | Tyr | Glu | Gln | Thr | Leu | Leu | Glu | Thr | Thr | Thr |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ser | Leu | Leu | Asn | Gln | Asp | Leu | His | Trp | Ser | Leu | Cys | Asn | Leu | Arg | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ser | Val | Thr | Arg | Gly | Leu | Asn | Pro | Lys | Gln | Asp | Tyr | Cys | Ser | Ile | Cys |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Leu | Gln | Gln | Tyr | Lys | Arg | Arg | Gln | Glu | Met | Ala | Asp | Glu | Ile | Ile | Val |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Phe | Ser | Cys | Gly | His | Leu | Tyr | His | Ser | Phe | Cys | Leu | Gln | Asn | Lys | Glu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Cys | Thr | Val | Glu | Phe | Glu | Gly | Gln | Thr | Arg | Trp | Thr | Cys | Tyr | Lys | Cys |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ser | Ser | Ser | Asn | Lys | Val | Gly | Lys | Leu | Ser | Glu | Asn | Ser | Ser | Glu | Ile |

1091

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 500 | | | | | | | 505 | | | | | 510 | | | | |
| Lys | Lys | Gly | Arg | Ile | Thr | Pro | Ser | Gln | Val | Lys | Met | Ser | Pro | Ser | Tyr | |
| 515 | | | | | | | 520 | | | 525 | | | | | | |
| His | Gln | Ser | Lys | Gly | Asp | Pro | Thr | Ala | Lys | Lys | Gly | Thr | Ser | Glu | Pro | |
| 530 | | | | | | | 535 | | | 540 | | | | | | |
| Val | Leu | Asp | Pro | Gln | Gln | Ile | Gln | Ala | Phe | Asp | Gln | Leu | Cys | Arg | Leu | |
| 545 | | | | | | | | | | 555 | | | | | 560 | |
| Tyr | Arg | Gly | Ser | Ser | Arg | Leu | Ala | Leu | Leu | Thr | Glu | Leu | Ser | Gln | Asn | |
| | | | | 565 | | | | | | | 570 | | | 575 | | |
| Arg | Ser | Ser | Glu | Ser | Tyr | Arg | Pro | Phe | Ser | Gly | Ser | Gln | Ser | Ala | Pro | |
| | | | 580 | | | | | | | 585 | | | 590 | | | |
| Ala | Phe | Asn | Ser | Ile | Phe | Gln | Asn | Glu | Asn | Phe | Gln | Leu | Gln | Leu | Ile | |
| 595 | | | | | | | 600 | | | 605 | | | | | | |
| Pro | Pro | Pro | Val | Thr | Glu | Asp | | | | | | | | | | |
| 610 | | | | | | | 615 | | | | | | | | | |

<210> 1095

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1095

Trp Xaa Ser Thr Thr Ile Trp Lys Ala Gly Pro Pro Ala Gly Thr Gly
1 5 10 15

Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Xaa Thr Arg Gly Phe Trp
20 25 30

Phe Cys Ser Ser Val Trp Val Ser Ser Arg Leu Leu Lys Met Asn Arg
35 40 45

Leu Phe Gly Lys Ala Lys Pro Lys Ala Pro Pro Pro Ser Leu Thr Asp

1092

| | | |
|---|-----|---------|
| 50 | 55 | 60 |
| Cys Ile Gly Thr Val Asp Ser Arg Ala Glu Ser Ile Asp Lys Lys Ile | | |
| 65 | 70 | 75 80 |
| Ser Arg Leu Asp Ala Glu Leu Val Lys Tyr Lys Asp Gln Ile Lys Lys | | |
| | 85 | 90 95 |
| Met Arg Glu Gly Pro Ala Lys Asn Met Val Lys Gln Lys Ala Leu Arg | | |
| | 100 | 105 110 |
| Val Leu Lys Gln Lys Arg Met Tyr Glu Gln Gln Arg Asp Asn Leu Ala | | |
| | 115 | 120 125 |
| Gln Gln Ser Phe Asn Met Glu Gln Ala Asn Tyr Thr Ile Gln Ser Leu | | |
| | 130 | 135 140 |
| Lys Asp Thr Lys Thr Thr Val Asp Ala Met Lys Leu Gly Val Lys Glu | | |
| 145 | 150 | 155 160 |
| Met Lys Lys Ala Tyr Lys Gln Val Lys Ile Asp Gln Ile Glu Asp Leu | | |
| | 165 | 170 175 |
| Gln Asp Gln Leu Glu Asp Met Met Glu Asp Ala Asn Glu Ile Gln Glu | | |
| | 180 | 185 190 |
| Ala Leu Ser Arg Ser Tyr Gly Thr Pro Glu Leu Asp Glu Asp Asp Leu | | |
| | 195 | 200 205 |
| Glu Ala Glu Leu Asp Ala Leu Gly Asp Glu Leu Leu Ala Asp Glu Asp | | |
| | 210 | 215 220 |
| Ser Ser Tyr Leu Asp Glu Ala Ala Ser Ala Pro Ala Ile Pro Glu Gly | | |
| 225 | 230 | 235 240 |
| Val Pro Thr Asp Thr Lys Asn Lys Asp Gly Val Leu Val Asp Glu Phe | | |
| | 245 | 250 255 |
| Gly Leu Pro Gln Ile Pro Ala Ser | | |
| | 260 | |

<210> 1096

<211> 244

<212> PRT

<213> Homo sapiens

<400> 1096

| |
|---|
| Ser Cys Cys Phe Leu Lys Arg Leu Gln Ala Ser Phe Pro Arg Thr Ala |
| 1 5 10 15 |

1093

Val Ser Phe Glu Pro Leu Ala Gly Asp Met Pro Arg Gly Arg Lys Ser
 20 25 30
 Arg Arg Arg Arg Asn Ala Arg Ala Ala Glu Glu Asn Arg Asn Asn Arg
 35 40 45
 Lys Ile Gln Ala Ser Glu Ala Ser Glu Thr Pro Met Ala Ala Ser Val
 50 55 60
 Val Ala Ser Thr Pro Glu Asp Asp Leu Ser Gly Pro Glu Glu Asp Pro
 65 70 75 80
 Ser Thr Pro Glu Glu Ala Ser Thr Thr Pro Glu Glu Ala Ser Ser Thr
 85 90 95
 Ala Gln Ala Gln Lys Pro Ser Val Pro Arg Ser Asn Phe Gln Gly Thr
 100 105 110
 Lys Lys Ser Leu Leu Met Ser Ile Leu Ala Leu Ile Phe Ile Met Gly
 115 120 125
 Asn Ser Ala Lys Glu Ala Leu Val Trp Lys Val Leu Gly Lys Leu Gly
 130 135 140
 Met Gln Pro Gly Arg Gln His Ser Ile Phe Gly Asp Pro Lys Lys Ile
 145 150 155 160
 Val Thr Glu Glu Phe Val Arg Arg Gly Tyr Leu Ile Tyr Lys Pro Val
 165 170 175
 Pro Arg Ser Ser Pro Val Glu Tyr Glu Phe Phe Trp Gly Pro Arg Ala
 180 185 190
 His Val Glu Ser Ser Lys Leu Lys Val Met His Phe Val Ala Arg Val
 195 200 205
 Arg Asn Arg Cys Ser Lys Asp Trp Pro Cys Asn Tyr Asp Trp Asp Ser
 210 215 220
 Asp Asp Asp Ala Glu Val Glu Ala Ile Leu Asn Ser Gly Ala Arg Gly
 225 230 235 240
 Tyr Ser Ala Pro

<210> 1097

<211> 132

<212> PRT

1094

<213> Homo sapiens

<400> 1097

Ala Thr Met Val Arg Met Asn Val Leu Ala Asp Ala Leu Lys Ser Ile
1 5 10 15
Asn Asn Ala Glu Lys Arg Gly Lys Arg Gln Val Leu Ile Arg Pro Cys
20 25 30
Ser Lys Val Ile Val Arg Phe Leu Thr Val Met Met Lys His Gly Tyr
35 40 45
Ile Gly Glu Phe Glu Ile Ile Asp Asp His Arg Ala Gly Lys Ile Val
50 55 60
Val Asn Leu Thr Gly Arg Leu Asn Lys Cys Gly Val Ile Ser Pro Arg
65 70 75 80
Phe Asp Val Gln Leu Lys Asp Leu Glu Lys Trp Gln Asn Asn Leu Leu
85 90 95
Pro Ser Arg Gln Phe Gly Phe Ile Val Leu Thr Thr Ser Ala Gly Ile
100 105 110
Met Asp His Glu Glu Ala Arg Arg Lys His Thr Gly Gly Lys Ile Leu
115 120 125
Gly Phe Phe Phe
130

<210> 1098

<211> 371

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1098

Ala Arg His Thr Pro Ala Gln Arg His Asp His Pro Gln Glu Gly Asn
1 5 10 15

1095

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Val | Cys | Val | Gln | Leu | Ala | Val | Cys | Ala | Leu | Pro | Leu | Pro | Val | 20 | 25 | 30 | |
| Val | Pro | Gly | Pro | Glu | His | Cys | Gly | Pro | Gln | Arg | Xaa | Leu | Gln | Pro | Leu | 35 | 40 | 45 | |
| Val | Tyr | Pro | Leu | Ala | Gln | Val | Ile | Ile | Gly | Cys | Ile | Lys | Leu | Ile | Pro | 50 | 55 | 60 | |
| Thr | Ala | Arg | Phe | Tyr | Pro | Leu | Arg | Met | His | Cys | Ile | Arg | Ala | Leu | Thr | 65 | 70 | 75 | 80 |
| Leu | Leu | Ser | Gly | Ser | Ser | Gly | Ala | Phe | Ile | Pro | Val | Leu | Pro | Phe | Ile | 85 | 90 | 95 | |
| Leu | Glu | Met | Phe | Gln | Gln | Val | Asp | Phe | Asn | Arg | Lys | Pro | Gly | Arg | Met | 100 | 105 | 110 | |
| Ser | Ser | Lys | Pro | Ile | Asn | Phe | Ser | Val | Ile | Leu | Lys | Leu | Ser | Asn | Val | 115 | 120 | 125 | |
| Asn | Leu | Gln | Glu | Lys | Ala | Tyr | Arg | Asp | Gly | Leu | Val | Glu | Gln | Leu | Tyr | 130 | 135 | 140 | |
| Asp | Leu | Thr | Leu | Glu | Tyr | Leu | His | Ser | Gln | Ala | His | Cys | Ile | Gly | Phe | 145 | 150 | 155 | 160 |
| Pro | Glu | Leu | Val | Leu | Pro | Val | Val | Leu | Gln | Leu | Lys | Ser | Phe | Leu | Arg | 165 | 170 | 175 | |
| Glu | Cys | Lys | Val | Ala | Asn | Tyr | Cys | Arg | Xaa | Val | Gln | Gln | Leu | Leu | Gly | 180 | 185 | 190 | |
| Lys | Val | Gln | Glu | Asn | Ser | Ala | Tyr | Ile | Cys | Ser | Arg | Arg | Gln | Arg | Val | 195 | 200 | 205 | |
| Ser | Phe | Gly | Val | Ser | Glu | Gln | Gln | Ala | Val | Glu | Ala | Trp | Glu | Lys | Leu | 210 | 215 | 220 | |
| Thr | Arg | Glu | Glu | Gly | Thr | Pro | Leu | Thr | Leu | Tyr | Tyr | Ser | His | Trp | Arg | 225 | 230 | 235 | 240 |
| Lys | Leu | Arg | Asp | Arg | Glu | Ile | Gln | Leu | Glu | Ile | Ser | Gly | Lys | Glu | Arg | 245 | 250 | 255 | |
| Leu | Glu | Asp | Leu | Asn | Phe | Pro | Glu | Ile | Lys | Arg | Arg | Lys | Met | Ala | Asp | 260 | 265 | 270 | |
| Arg | Lys | Asp | Glu | Asp | Arg | Lys | Gln | Phe | Lys | Asp | Leu | Phe | Asp | Leu | Asn | 275 | 280 | 285 | |

1096

Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Ser Glu Arg Gly Ile Leu
 290 295 300
 Arg Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu Glu Asp Glu
 305 310 315 320
 Glu Glu Gly Glu Glu Asp Ser Ser Asn Ser Glu Gly Glu Trp Ser Trp
 325 330 335
 Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly Glu Leu Gln
 340 345 350
 Gln Leu Ala Gln Gly Pro Glu Asp Glu Leu Glu Asp Leu Gln Leu Ser
 355 360 365
 Glu Asp Asp
 370

<210> 1099
 <211> 321
 <212> PRT
 <213> Homo sapiens

<400> 1099
 Glu Arg Thr Leu Gly Gln Pro Gly Phe Leu Gly Cys Pro Arg Gln Pro
 1 5 10 15
 His Thr Ala Met His Tyr Pro Thr Ala Leu Leu Phe Leu Ile Leu Ala
 20 25 30
 Asn Gly Ala Gln Ala Phe Arg Ile Cys Ala Phe Asn Ala Gln Arg Leu
 35 40 45
 Thr Leu Ala Lys Val Ala Arg Glu Gln Val Met Asp Thr Leu Val Arg
 50 55 60
 Ile Leu Ala Arg Cys Asp Ile Met Val Leu Gln Glu Val Val Asp Ser
 65 70 75 80
 Ser Gly Ser Ala Ile Pro Leu Leu Leu Arg Glu Leu Asn Arg Phe Asp
 85 90 95
 Gly Ser Gly Pro Tyr Ser Thr Leu Ser Ser Pro Gln Leu Gly Arg Ser
 100 105 110
 Thr Tyr Met Glu Thr Tyr Val Tyr Phe Tyr Arg Ser His Lys Thr Gln
 115 120 125
 Val Leu Ser Ser Tyr Val Tyr Asn Asp Glu Asp Asp Val Phe Ala Arg

1097

| 130 | 135 | 140 |
|---|-----|-------------|
| Glu Pro Phe Val Ala Gln Phe Ser Leu Pro Ser Asn Val Leu Pro Ser | | |
| 145 | 150 | 155 160 |
| Leu Val Leu Val Pro Leu His Thr Thr Pro Lys Ala Val Glu Lys Glu | | |
| | 165 | 170 175 |
| Leu Asn Ala Leu Tyr Asp Val Phe Leu Glu Val Ser Gln His Trp Gln | | |
| | 180 | 185 190 |
| Ser Lys Asp Val Ile Leu Leu Gly Asp Phe Asn Ala Asp Cys Ala Ser | | |
| | 195 | 200 205 |
| Leu Thr Lys Lys Arg Leu Asp Lys Leu Glu Leu Arg Thr Glu Pro Gly | | |
| | 210 | 215 220 |
| Phe His Trp Val Ile Ala Asp Gly Glu Asp Thr Thr Val Arg Ala Ser | | |
| | 225 | 230 235 240 |
| Thr His Cys Thr Tyr Asp Arg Val Val Leu His Gly Glu Arg Cys Arg | | |
| | 245 | 250 255 |
| Ser Leu Leu His Thr Ala Ala Ala Phe Asp Phe Pro Thr Ser Phe Gln | | |
| | 260 | 265 270 |
| Leu Thr Glu Glu Glu Ala Leu Asn Ile Ser Asp His Tyr Pro Val Glu | | |
| | 275 | 280 285 |
| Val Glu Leu Lys Leu Ser Gln Ala His Ser Val Gln Pro Leu Ser Leu | | |
| | 290 | 295 300 |
| Thr Val Leu Leu Leu Leu Ser Leu Leu Ser Pro Gln Leu Cys Pro Ala | | |
| | 305 | 310 315 320 |
| Ala | | |

<210> 1100

<211> 60

<212> PRT

<213> Homo sapiens

<400> 1100

| |
|---|
| Leu Leu Leu Cys Val Phe Tyr Ile Ala Cys Phe Cys Lys Asn Met Leu |
| 1 5 10 15 |

| |
|---|
| Gly Asp Glu Arg Leu Val Leu Glu Arg Lys Cys Ser Ser Val Gln Arg |
| 20 25 30 |

1098

Met His Phe Leu Pro Leu Ile Leu Glu Lys Thr Phe Thr Val Ile Tyr
 35 40 45

Met Val Phe Cys Lys Arg Thr Ile Asn Arg Thr Phe
 50 55 60

<210> 1101

<211> 254

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1101

Phe Gly Thr Ser Tyr Ile Gly Gly Leu Leu Ser Ala Phe Tyr Leu Thr
 1 5 10 15

Gly Glu Glu Val Phe Arg Ile Lys Ala Ile Arg Leu Gly Glu Lys Leu
 20 25 30

Leu Pro Ala Phe Asn Thr Pro Thr Gly Ile Pro Lys Gly Val Val Ser
 35 40 45

Phe Lys Ser Gly Asn Trp Gly Trp Ala Thr Ala Gly Ser Ser Ser Ile
 50 55 60

Leu Ala Glu Phe Gly Ser Leu His Leu Glu Phe Leu His Leu Thr Glu
 65 70 75 80

Leu Ser Gly Asn Gln Val Phe Ala Glu Lys Val Arg Asn Ile Arg Lys
 85 90 95

Val Leu Arg Lys Ile Glu Lys Pro Phe Gly Leu Tyr Pro Asn Phe Leu
 100 105 110

Ser Pro Val Ser Gly Asn Trp Val Gln His His Val Ser Val Gly Gly
 115 120 125

Leu Gly Asp Ser Phe Tyr Glu Tyr Leu Ile Lys Ser Trp Leu Met Ser
 130 135 140

1099

Gly Lys Thr Asp Met Glu Ala Lys Asn Met Tyr Tyr Glu Ala Leu Glu
 145 150 155 160
 Ala Xaa Arg Asp Leu Leu Ala Glu Cys Xaa Ser Arg Gly Ala Asp Leu
 165 170 175
 His Cys Arg Val Ala Arg Gly Asp Ser Gly Pro Gln Asp Gly Ala Pro
 180 185 190
 Gly Leu Phe Leu Arg Gly His Asp Arg Pro Trp Pro Glu Asp Ala Lys
 195 200 205
 Glu Glu Lys Arg Ala His Tyr Arg Glu Leu Ala Ala Gln Ile Thr Lys
 210 215 220
 Thr Cys His Glu Ser Tyr Ala Arg Ser Asp Thr Lys Leu Gly Pro Glu
 225 230 235 240
 Ala Ser Gly Leu Thr Pro Ala Glu Arg Pro Trp Pro Pro Ser
 245 250

<210> 1102
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 1102
 Gly Pro Gly Trp Tyr Pro Ala Pro Leu Arg Leu Phe His Ser Asp Pro
 1 5 10 15
 Trp Gly His Ala Gln Pro Gly Ala Lys Arg His Arg Ile Pro Glu Pro
 20 25 30
 Glu Ala Ala Val Leu Phe Arg Gln Met Ala Thr Ala Leu Ala His Cys
 35 40 45
 His Gln His Gly Leu Val Leu Arg Asp Leu Lys Leu Cys Arg Phe Val
 50 55 60
 Phe Ala Asp Arg Glu Arg Lys Lys Leu Val Leu Glu Asn Leu Glu Asp
 65 70 75 80
 Ser Cys Val Leu Thr Gly Pro Asp Asp Ser Leu Trp Asp Lys His Ala
 85 90 95
 Cys Pro Ala Tyr Val Gly Pro Glu Ile Leu Ser Ser Arg Ala Ser Tyr
 100 105 110

1100

Ser Gly Lys Ala Ala Asp Val Trp Ser Leu Gly Val Ala Leu Phe Thr
 115 120 125
 Met Leu Ala Gly His Tyr Pro Phe Gln Asp Ser Glu Pro Val Leu Leu
 130 135 140
 Phe Gly Lys Ile Arg Arg Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser
 145 150 155 160
 Ala Pro Ala Arg Cys Leu Val Arg Cys Leu Leu Arg Arg Glu Pro Ala
 165 170 175
 Glu Arg Leu Thr Ala Thr Gly Ile Leu Leu His Pro Trp Leu Arg Gln
 180 185 190
 Asp Pro Met Pro Leu Ala Pro Thr Arg Ser His Leu Trp Glu Ala Ala
 195 200 205
 Gln Val Val Pro Asp Gly Leu Gly Leu Asp Glu Ala Arg Glu Glu Glu
 210 215 220
 Gly Asp Arg Glu Val Val Leu Tyr Gly
 225 230

<210> 1103
 <211> 330
 <212> PRT
 <213> Homo sapiens

<400> 1103
 Cys Gln Leu Arg Ser Ala Ala Gly Val Pro Ser Ser Val Ser Val Ser
 1 5 10 15
 Pro Arg Asp Pro Ile Ala Met Glu Leu Ser Asp Ala Asn Leu Gln Thr
 20 25 30
 Leu Thr Glu Tyr Leu Lys Lys Thr Leu Asp Pro Asp Pro Ala Ile Arg
 35 40 45
 Arg Pro Ala Glu Lys Phe Leu Glu Ser Val Glu Gly Asn Gln Asn Tyr
 50 55 60
 Pro Leu Leu Leu Leu Thr Leu Leu Glu Lys Ser Gln Asp Asn Val Ile
 65 70 75 80
 Lys Val Cys Ala Ser Val Thr Phe Lys Asn Tyr Ile Lys Arg Asn Trp
 85 90 95
 Arg Ile Val Glu Asp Glu Pro Asn Lys Ile Cys Glu Ala Asp Arg Val

1101

| 100 | | | | | 105 | | | | | 110 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ile | Lys | Ala | Asn | Ile | Val | His | Leu | Met | Leu | Ser | Ser | Pro | Glu | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Gln | Lys | Gln | Leu | Ser | Asp | Ala | Ile | Ser | Ile | Ile | Gly | Arg | Glu | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Pro | Gln | Lys | Trp | Pro | Asp | Leu | Leu | Thr | Glu | Met | Val | Asn | Arg | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gln | Ser | Gly | Asp | Phe | His | Val | Ile | Asn | Gly | Val | Leu | Arg | Thr | Ala | His |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ser | Leu | Phe | Lys | Arg | Tyr | Arg | His | Glu | Phe | Lys | Ser | Asn | Glu | Leu | Trp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Glu | Ile | Lys | Leu | Val | Leu | Asp | Ala | Phe | Ala | Leu | Pro | Leu | Thr | Asn |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Phe | Lys | Ala | Thr | Ile | Glu | Leu | Cys | Ser | Thr | His | Ala | Asn | Asp | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Ala | Leu | Arg | Ile | Leu | Phe | Ser | Ser | Leu | Ile | Leu | Ile | Ser | Lys | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Tyr | Ser | Leu | Asn | Phe | Gln | Asp | Leu | Pro | Glu | Phe | Phe | Glu | Asp | Asn |
| | | | | 245 | | | | 250 | | | | | | 255 | |
| Met | Glu | Thr | Trp | Met | Asn | Asn | Phe | His | Thr | Leu | Leu | Thr | Leu | Asp | Asn |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Lys | Leu | Leu | Gln | Thr | Asp | Asp | Glu | Glu | Glu | Ala | Gly | Leu | Leu | Glu | Leu |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Leu | Lys | Ser | Gln | Ile | Cys | Asp | Asn | Ala | Ala | Leu | Tyr | Ala | Gln | Lys | Tyr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Glu | Glu | Phe | Gln | Arg | Tyr | Leu | Pro | Arg | Phe | Val | Thr | Ala | Ile | Trp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Phe | Thr | Ser | Tyr | Asn | Gly | Ser | Arg | Gly | | | | | | |
| | | | | 325 | | | | | 330 | | | | | | |

<210> 1104

<211> 180

<212> PRT

<213> Homo sapiens

1102

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (150)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (167)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (171)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (175)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (177)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (180)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1104
Gly Thr Ser Pro Gly Arg Gly Gly Xaa Gly Val Gly Leu Arg Gly Leu
1 5 10 15
Ser Ser Leu Gln Ala Pro Gln Pro Ser Arg Val Pro Trp Pro Met Ala
20 25 30
Ala Tyr Ser Tyr Arg Pro Gly Pro Gly Ala Gly Pro Gly Pro Ala Ala
35 40 45
Gly Ala Ala Leu Pro Asp Gln Ser Phe Leu Trp Asn Val Phe Gln Arg
50 55 60
Val Asp Lys Asp Arg Ser Gly Val Ile Ser Asp Thr Glu Leu Gln Gln
65 70 75 80

1103

Ala Leu Ser Asn Gly Thr Trp Thr Pro Phe Asn Pro Val Thr Val Arg
 85 90 95

Ser Ile Ile Ser Met Phe Asp Arg Glu Asn Lys Ala Gly Val Asn Phe
 100 105 110

Ser Glu Phe Thr Gly Val Trp Lys Tyr Ile Thr Asp Trp Gln Asn Val
 115 120 125

Phe Arg Thr Tyr Asp Arg Asp Asn Ser Gly Met Ile Asp Lys Asn Glu
 130 135 140

Leu Lys Gln Ala Leu Xaa Val Ser Ala Thr Gly Ser Leu Thr Ser Ser
 145 150 155 160

Thr Thr Ser Ser Phe Glu Xaa Leu Thr Gly Xaa Gly Arg Gly Xaa Ser
 165 170 175

Xaa Ser Thr Xaa
 180

<210> 1105

<211> 241

<212> PRT

<213> Homo sapiens

<400> 1105

Thr Thr Arg Phe Pro Ser Gly Gln Pro Leu Lys Pro Arg Pro Thr Leu
 1 5 10 15

Thr Ala Ala Gly Pro Arg Pro Gly Leu Leu Cys Phe Thr Ile Tyr Ile
 20 25 30

Met Asn Pro Ser Met Lys Gln Lys Gln Glu Glu Ile Lys Glu Asn Ile
 35 40 45

Lys Asn Ser Ser Val Pro Arg Arg Thr Leu Lys Met Ile Gln Pro Ser
 50 55 60

Ala Ser Gly Ser Leu Val Gly Arg Glu Asn Glu Leu Ser Ala Gly Leu
 65 70 75 80

Ser Lys Arg Lys His Arg Asn Asp His Leu Thr Ser Thr Thr Ser Ser
 85 90 95

Pro Gly Val Ile Val Pro Glu Ser Ser Glu Asn Lys Asn Leu Gly Gly
 100 105 110

Val Thr Gln Glu Ser Phe Asp Leu Met Ile Lys Glu Asn Pro Ser Ser

1104

| | | |
|-------------------------|---------------------|-----------------------------|
| 115 | 120 | 125 |
| Gln Tyr Trp Lys Glu Val | Ala Glu Lys Arg Arg | Lys Ala Leu Tyr Glu |
| 130 | 135 | 140 |
| Ala Leu Lys Glu Asn Glu | Lys Leu His Lys Glu | Ile Glu Gln Lys Asp |
| 145 | 150 | 155 |
| Asn Glu Ile Ala Arg | Leu Lys Lys Glu | Asn Lys Glu Leu Ala Glu Val |
| 165 | 170 | 175 |
| Ala Glu His Val Gln Tyr | Met Ala Glu Leu Ile | Glu Arg Leu Asn Gly |
| 180 | 185 | 190 |
| Glu Pro Leu Asp Asn Phe | Glu Ser Leu Asp Asn | Gln Glu Phe Asp Ser |
| 195 | 200 | 205 |
| Glu Glu Glu Thr Val Glu | Asp Ser Leu Val Glu | Asp Ser Glu Ile Gly |
| 210 | 215 | 220 |
| Thr Cys Ala Glu Gly Thr | Val Ser Ser Ser Thr | Asp Ala Lys Pro Cys |
| 225 | 230 | 235 |
| Ile | | |

<210> 1106
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 1106

| |
|---|
| Phe His Thr Glu Phe Ile Thr Ile Trp Asp Val Arg Gln Cys Ser Asn |
| 1 5 10 15 |
| Lys His Cys Gln His Val Asn Phe Leu Lys Ser Val Gly His Ile Ala |
| 20 25 30 |
| Lys Asn Leu Leu Lys His Asn Cys Ile Phe Cys Phe Arg Ala Leu Leu |
| 35 40 45 |
| Met Phe Cys Arg Ser Asn Val Cys Ile Phe Leu Leu Asn Lys Leu Val |
| 50 55 60 |
| Leu Ile Leu Glu Leu Ser Asp Asp Phe Val Leu Glu Arg Thr Thr Gln |
| 65 70 75 80 |
| Arg Arg Gln Cys Lys Ser Lys Ser |
| 85 |

1105

<210> 1107

<211> 124

<212> PRT

<213> Homo sapiens

<400> 1107

Leu Val Val Leu Lys Arg Arg Pro Glu Lys Ser Gln Gly His Glu His
1 5 10 15
Arg Ala Met Pro Phe Leu Asp Ile Gln Lys Arg Phe Gly Leu Asn Ile
20 25 30
Asp Arg Trp Leu Thr Ile Gln Ser Gly Glu Gln Pro Tyr Lys Met Ala
35 40 45
Gly Arg Cys His Ala Phe Glu Lys Glu Trp Ile Glu Cys Ala His Gly
50 55 60
Ile Gly Tyr Thr Arg Ala Glu Lys Glu Cys Lys Ile Glu Tyr Asp Asp
65 70 75 80
Phe Val Glu Cys Leu Leu Arg Gln Lys Thr Met Arg Arg Ala Gly Thr
85 90 95
Ile Arg Lys Gln Arg Asp Lys Leu Ile Lys Glu Gly Lys Tyr Thr Pro
100 105 110
Pro Pro His His Ile Gly Lys Gly Glu Pro Arg Pro
115 120

<210> 1108

<211> 299

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1108

1106

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| His | Leu | Leu | Cys | Cys | Arg | Ala | Gln | Arg | Arg | Pro | Gln | Thr | Pro | Pro | Ala | |
| 1 | | | | 5 | | | | | 10 | | | | | | 15 | |
| Ala | Arg | Gly | Leu | Glu | Pro | Ala | Gln | Arg | Cys | Phe | Glu | Asp | Ala | Gly | Xaa | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Pro | Pro | Leu | Leu | Leu | Ala | Ala | Val | Leu | Leu | Gly | Leu | Val | Leu | Leu | Val | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | Leu | Leu | Leu | Leu | Leu | Arg | His | Trp | Gly | Trp | Gly | Leu | Cys | Leu | Ile | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gly | Trp | Asn | Glu | Phe | Ile | Leu | Gln | Pro | Ile | His | Asn | Leu | Leu | Met | Gly | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Thr | Lys | Glu | Gln | Arg | Ile | Leu | Asn | His | Val | Leu | Gln | His | Ala | Glu | |
| | | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Gly | Asn | Ala | Gln | Ser | Val | Leu | Glu | Ala | Ile | Asp | Thr | Tyr | Cys | Glu | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Gln | Lys | Glu | Trp | Ala | Met | Asn | Val | Gly | Asp | Lys | Lys | Gly | Lys | Ile | Val | |
| | 115 | | | | | | 120 | | | | | 125 | | | | |
| Asp | Ala | Val | Ile | Gln | Glu | His | Gln | Pro | Ser | Val | Leu | Leu | Glu | Leu | Gly | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ala | Tyr | Cys | Gly | Tyr | Ser | Ala | Val | Arg | Met | Ala | Arg | Leu | Leu | Ser | Pro | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | |
| Gly | Ala | Arg | Leu | Ile | Thr | Ile | Glu | Ile | Asn | Pro | Asp | Cys | Ala | Ala | Ile | |
| | | | 165 | | | | | | 170 | | | | | 175 | | |
| Thr | Gln | Arg | Met | Val | Asp | Phe | Ala | Gly | Xaa | Lys | Asp | Lys | Val | Thr | Leu | |
| | | 180 | | | | | | 185 | | | | | 190 | | | |
| Val | Val | Gly | Ala | Ser | Gln | Asp | Ile | Ile | Pro | Gln | Leu | Lys | Lys | Lys | Tyr | |
| | 195 | | | | | | 200 | | | | | 205 | | | | |
| Asp | Val | Asp | Thr | Leu | Asp | Met | Val | Phe | Leu | Asp | His | Trp | Lys | Asp | Arg | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Tyr | Leu | Pro | Asp | Thr | Leu | Leu | Leu | Glu | Glu | Cys | Gly | Leu | Leu | Arg | Lys | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Gly | Thr | Val | Leu | Leu | Ala | Asp | Asn | Val | Ile | Cys | Pro | Gly | Ala | Pro | Asp | |
| | | | 245 | | | | | 250 | | | | | | 255 | | |
| Phe | Leu | Ala | His | Val | Arg | Gly | Ser | Ser | Cys | Phe | Glu | Cys | Thr | His | Tyr | |
| | | 260 | | | | | | 265 | | | | | 270 | | | |

1107

Gln Ser Phe Leu Glu Tyr Arg Glu Val Val Asp Gly Leu Glu Lys Ala
 275 280 285

Ile Tyr Lys Gly Pro Gly Ser Glu Ala Gly Pro
 290 295

<210> 1109

<211> 300

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1109

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Arg Leu Arg Asp Leu
 1 5 10 15

Leu Thr Arg Arg Leu Thr Gly Ser Asn Tyr Pro Gly Leu Ser Ile Ser
 20 25 30

Leu Arg Leu Thr Gly Ser Ser Ala Gln Glu Xaa Ala Ser Gly Val Ala
 35 40 45

Leu Gly Glu Ala Pro Asp His Ser Tyr Glu Ser Leu Arg Val Thr Ser
 50 55 60

Ala Gln Lys His Val Leu His Val Gln Leu Asn Arg Pro Asn Lys Arg
 65 70 75 80

Asn Ala Met Asn Lys Val Phe Trp Arg Glu Met Val Glu Cys Phe Asn
 85 90 95

Lys Ile Ser Arg Asp Ala Asp Cys Arg Ala Val Val Ile Ser Gly Ala
 100 105 110

Gly Lys Met Phe Thr Ala Gly Ile Asp Leu Met Asp Met Ala Ser Asp
 115 120 125

Ile Leu Gln Pro Lys Gly Asp Asp Val Ala Arg Ile Ser Trp Tyr Leu
 130 135 140

Arg Asp Ile Ile Thr Arg Tyr Gln Glu Thr Phe Asn Val Ile Glu Arg
 145 150 155 160

Cys Pro Lys Pro Val Ile Ala Ala Val His Gly Gly Cys Ile Gly Gly
 165 170 175

1108

Gly Val Asp Leu Val Thr Ala Cys Asp Ile Arg Tyr Cys Ala Gln Asp
 180 185 190
 Ala Phe Phe Gln Val Lys Glu Val Asp Val Gly Leu Ala Ala Asp Val
 195 200 205
 Gly Thr Leu Gln Arg Leu Pro Lys Val Ile Gly Asn Gln Ser Leu Val
 210 215 220
 Asn Glu Leu Ala Phe Thr Ala Arg Lys Met Met Ala Asp Glu Ala Leu
 225 230 235 240
 Gly Ser Gly Leu Val Ser Arg Val Phe Pro Asp Lys Glu Val Met Leu
 245 250 255
 Asp Ala Ala Leu Ala Leu Ala Ala Glu Ile Ser Ser Lys Ser Pro Val
 260 265 270
 Ala Cys Arg Ala Pro Arg Ser Thr Cys Cys Ile Pro Ala Thr Ile Arg
 275 280 285
 Trp Pro Arg Ala Ser Thr Thr Trp Arg Pro Gly Thr
 290 295 300

<210> 1110

<211> 230

<212> PRT

<213> Homo sapiens

<400> 1110

Arg Ser Cys Ala Leu Val Cys Lys His Trp Tyr Arg Cys Leu His Gly
 1 5 10 15
 Asp Glu Asn Ser Glu Val Trp Arg Ser Leu Cys Ala Arg Ser Leu Ala
 20 25 30
 Glu Glu Ala Leu Arg Thr Asp Ile Leu Cys Asn Leu Pro Ser Tyr Lys
 35 40 45
 Ala Lys Ile Arg Ala Phe Gln His Ala Phe Ser Thr Asn Asp Cys Ser
 50 55 60
 Arg Asn Val Tyr Ile Lys Lys Asn Gly Phe Thr Leu His Arg Asn Pro
 65 70 75 80
 Ile Ala Gln Ser Thr Asp Gly Ala Arg Thr Lys Ile Gly Phe Ser Glu
 85 90 95

1109

Gly Arg His Ala Trp Glu Val Trp Trp Glu Gly Pro Leu Gly Thr Val
100 105 110

Ala Val Ile Gly Ile Ala Thr Lys Arg Ala Pro Met Gln Cys Gln Gly
115 120 125

Tyr Val Ala Leu Leu Gly Ser Asp Asp Gln Ser Trp Gly Trp Asn Leu
130 135 140

Val Asp Asn Asn Leu Leu His Asn Gly Glu Val Asn Gly Ser Phe Pro
145 150 155 160

Gln Cys Asn Asn Ala Pro Lys Tyr Gln Ile Gly Glu Arg Ile Arg Val
165 170 175

Ile Leu Asp Met Glu Asp Lys Thr Leu Ala Phe Glu Arg Gly Tyr Glu
180 185 190

Phe Leu Gly Val Ala Phe Arg Gly Leu Pro Lys Val Cys Leu Tyr Pro
195 200 205

Ala Val Ser Ala Val Tyr Gly Asn Thr Glu Val Thr Leu Val Tyr Leu
210 215 220

Gly Lys Pro Leu Asp Gly
225 230

<210> 1111

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1111

Pro Xaa Leu Thr Lys Gly Asn Lys Ser Trp Xaa Ser Thr Ala Val Xaa

1110

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 5 | 10 | 15 | | | | | | | | | | | | |
| Thr | Ala | Leu | Glu | Leu | Val | Asp | Pro | Pro | Gly | Cys | Arg | Asn | Ser | Ala | Pro |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gln | Lys | Asn | Leu | Lys | Asn | Thr | Val | Phe | Cys | Ile | Asp | Ile | Cys | Thr | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Val | Cys | Val | Cys | Glu | Ile | Lys | Ile | Arg | Phe | | | | | |
| | 50 | | | | | 55 | | | | | | | | | |

<210> 1112

<211> 425

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (228)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1112

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ile | Xaa | Gly | Phe | Tyr | Phe | Ala | Val | Leu | Ala | Pro | Gln | Glu | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Ile | Tyr | Glu | Met | Ala | Glu | Asn | Gly | Lys | Asn | Cys | Asp | Gln | Arg | Arg | Val |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Ala | Met | Asn | Lys | Glu | His | His | Asn | Gly | Asn | Phe | Thr | Asp | Pro | Ser | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Asn | Glu | Lys | Lys | Arg | Arg | Glu | Arg | Glu | Glu | Arg | Gln | Asn | Ile | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Trp | Arg | Gln | Pro | Leu | Ile | Thr | Leu | Gln | Tyr | Phe | Ser | Leu | Glu | Ile |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Val | Ile | Leu | Lys | Glu | Trp | Xaa | Ser | Lys | Leu | Trp | His | Arg | Gln | Ser |
| | | | 85 | | | | | | 90 | | | | | | 95 |

1111

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Val | Val | Ser | Phe | Leu | Leu | Leu | Leu | Ala | Val | Leu | Ile | Ala | Thr | Tyr | 100 | 105 | 110 | |
| Tyr | Val | Glu | Gly | Val | His | Gln | Gln | Tyr | Val | Gln | Arg | Ile | Glu | Lys | Gln | 115 | 120 | 125 | |
| Phe | Leu | Leu | Tyr | Ala | Tyr | Trp | Ile | Gly | Leu | Gly | Ile | Leu | Ser | Ser | Val | 130 | 135 | 140 | |
| Gly | Leu | Gly | Thr | Gly | Leu | His | Thr | Phe | Leu | Leu | Tyr | Leu | Gly | Pro | His | 145 | 150 | 155 | 160 |
| Ile | Ala | Ser | Val | Thr | Leu | Ala | Ala | Tyr | Glu | Cys | Asn | Ser | Val | Asn | Phe | 165 | 170 | 175 | |
| Pro | Glu | Pro | Pro | Tyr | Pro | Asp | Gln | Ile | Ile | Cys | Pro | Asp | Glu | Glu | Gly | 180 | 185 | 190 | |
| Thr | Glu | Gly | Thr | Ile | Ser | Leu | Trp | Ser | Ile | Ile | Ser | Lys | Val | Arg | Ile | 195 | 200 | 205 | |
| Glu | Ala | Cys | Met | Trp | Gly | Ile | Gly | Thr | Ala | Ile | Gly | Glu | Leu | Pro | Pro | 210 | 215 | 220 | |
| Tyr | Phe | Met | Xaa | Arg | Ala | Ala | Arg | Leu | Ser | Gly | Ala | Glu | Pro | Asp | Asp | 225 | 230 | 235 | 240 |
| Glu | Glu | Tyr | Gln | Glu | Phe | Glu | Glu | Met | Leu | Glu | His | Ala | Glu | Ser | Ala | 245 | 250 | 255 | |
| Gln | Asp | Phe | Ala | Ser | Arg | Ala | Lys | Leu | Ala | Val | Gln | Lys | Leu | Val | Gln | 260 | 265 | 270 | |
| Lys | Val | Gly | Phe | Phe | Gly | Ile | Leu | Ala | Cys | Ala | Ser | Ile | Pro | Asn | Pro | 275 | 280 | 285 | |
| Leu | Phe | Asp | Leu | Ala | Gly | Ile | Thr | Cys | Gly | His | Phe | Leu | Val | Pro | Phe | 290 | 295 | 300 | |
| Trp | Thr | Phe | Phe | Gly | Ala | Thr | Leu | Ile | Gly | Lys | Ala | Ile | Ile | Lys | Met | 305 | 310 | 315 | 320 |
| His | Ile | Gln | Lys | Ile | Phe | Val | Ile | Ile | Thr | Phe | Ser | Lys | His | Ile | Val | 325 | 330 | 335 | |
| Glu | Gln | Met | Val | Ala | Phe | Ile | Gly | Ala | Val | Pro | Gly | Ile | Gly | Pro | Ser | 340 | 345 | 350 | |
| Leu | Gln | Lys | Pro | Phe | Gln | Glu | Tyr | Leu | Glu | Ala | Gln | Arg | Gln | Lys | Leu | 355 | 360 | 365 | |

1112

His His Lys Ser Glu Met Gly Thr Pro Gln Gly Glu Asn Trp Leu Ser
 370 375 380

Trp Met Phe Glu Lys Leu Val Val Val Met Val Cys Tyr Phe Ile Leu
 385 390 395 400

Ser Ile Ile Asn Ser Met Ala Gln Ser Tyr Ala Lys Arg Ile Gln Gln
 405 410 415

Arg Leu Asn Ser Glu Glu Lys Thr Lys
 420 425

<210> 1113

<211> 254

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1113

Xaa Ile Glu Ile Asn Pro His Val Lys Gly Thr Lys Ala Gly Ala Pro
 1 5 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu
 20 25 30

Phe Gly Thr Ser Ser Ser Thr Pro Ala Arg Pro Ser Ser His His Ser
 35 40 45

Ala Cys Phe Leu Gly Pro Glu Ile Met Pro Leu Gly Leu Leu Trp Leu
 50 55 60

Gly Leu Ala Leu Leu Gly Ala Leu His Ala Gln Ala Gln Asp Ser Thr
 65 70 75 80

Ser Asp Leu Ile Pro Ala Pro Pro Leu Ser Lys Val Pro Leu Gln Gln
 85 90 95

Asn Phe Gln Asp Asn Gln Phe Gln Gly Lys Trp Tyr Val Val Gly Leu
 100 105 110

Ala Gly Asn Ala Ile Leu Arg Glu Asp Lys Asp Pro Gln Lys Met Tyr
 115 120 125

Ala Thr Ile Tyr Glu Leu Lys Glu Asp Lys Ser Tyr Asn Val Thr Ser

1113

| | | |
|---|-----|-------------|
| 130 | 135 | 140 |
| Val Leu Phe Arg Lys Lys Lys Cys Asp Tyr Trp Ile Arg Thr Phe Val | | |
| 145 | 150 | 155 160 |
| Pro Gly Cys Gln Pro Gly Glu Phe Thr Leu Gly Asn Ile Lys Ser Tyr | | |
| | 165 | 170 175 |
| Pro Gly Leu Thr Ser Tyr Leu Val Arg Val Val Ser Thr Asn Tyr Asn | | |
| | 180 | 185 190 |
| Gln His Ala Met Val Phe Phe Lys Lys Val Ser Gln Asn Arg Glu Tyr | | |
| | 195 | 200 205 |
| Phe Lys Ile Thr Leu Tyr Gly Arg Thr Lys Glu Leu Thr Ser Glu Leu | | |
| | 210 | 215 220 |
| Lys Glu Asn Phe Ile Arg Phe Ser Lys Ser Leu Gly Leu Pro Glu Asn | | |
| | 225 | 230 235 240 |
| His Ile Val Phe Pro Val Pro Ile Asp Gln Cys Ile Asp Gly | | |
| | 245 | 250 |

<210> 1114

<211> 248

<212> PRT

<213> Homo sapiens

<400> 1114

| | | |
|---|-----|----------|
| Ala Ser Glu Glu Ala Asn Pro Ala Gly Ile Arg Ala Ile Arg Thr Ala | | |
| 1 | 5 | 10 15 |
| Thr Met Thr Val Gly Lys Ser Ser Lys Met Leu Gln His Ile Asp Tyr | | |
| | 20 | 25 30 |
| Arg Met Arg Cys Ile Leu Gln Asp Gly Arg Ile Phe Ile Gly Thr Phe | | |
| | 35 | 40 45 |
| Lys Ala Phe Asp Lys His Met Asn Leu Ile Leu Cys Asp Cys Asp Glu | | |
| | 50 | 55 60 |
| Phe Arg Lys Ile Lys Pro Lys Asn Ser Lys Gln Ala Glu Arg Glu Glu | | |
| | 65 | 70 75 80 |
| Lys Arg Val Leu Gly Leu Val Leu Leu Arg Gly Glu Asn Leu Val Ser | | |
| | 85 | 90 95 |
| Met Thr Val Glu Gly Pro Pro Pro Lys Asp Thr Gly Ile Ala Arg Val | | |
| | 100 | 105 110 |

1114

Pro Leu Ala Gly Ala Ala Gly Gly Pro Gly Ile Gly Arg Ala Ala Gly
115 120 125

Arg Gly Ile Pro Ala Gly Val Pro Met Pro Gln Ala Pro Ala Gly Leu
130 135 140

Ala Gly Pro Val Arg Gly Val Gly Gly Pro Ser Gln Gln Val Met Thr
145 150 155 160

Pro Gln Gly Arg Gly Thr Val Ala Ala Ala Ala Ala Ala Thr Ala
165 170 175

Ser Ile Ala Gly Ala Pro Thr Gln Tyr Pro Pro Gly Arg Gly Gly Pro
180 185 190

Pro Pro Pro Met Gly Arg Gly Ala Pro Pro Pro Gly Met Met Gly Pro
195 200 205

Pro Pro Gly Met Arg Pro Pro Met Gly Pro Pro Met Gly Ile Pro Pro
210 215 220

Gly Arg Gly Thr Pro Met Gly Met Pro Pro Pro Gly Met Arg Pro Pro
225 230 235 240

Pro Pro Gly Met Arg Gly Leu Leu
245

<210> 1115

<211> 777

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1115

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1115

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Lys | Gly | Xaa | Lys | Ser | Trp | Xaa | Ser | Thr | Ala | Val | Xaa | Thr | Ala |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Leu | Val | Xaa | Pro | Pro | Gly | Cys | Arg | Asn | Ser | Ala | Arg | Ala | Xaa |
| | | | 20 | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Leu | Gly | Ser | Ser | Pro | Leu | Gly | Arg | Arg | Phe | Arg | Val | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Arg | Arg | Ser | Pro | Met | Phe | Glu | Glu | Lys | Ala | Ser | Ser | Pro | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Met | Gly | Gly | Glu | Glu | Lys | Pro | Ile | Gly | Ala | Gly | Glu | Glu | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Lys | Glu | Gly | Gly | Lys | Lys | Lys | Asn | Lys | Glu | Gly | Ser | Gly | Asp | Gly |
| | | | 85 | | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Ala | Glu | Leu | Asn | Pro | Trp | Pro | Glu | Tyr | Ile | Tyr | Thr | Arg | Leu |
| | | 100 | | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Met | Tyr | Asn | Ile | Leu | Lys | Ala | Glu | His | Asp | Ser | Ile | Leu | Ala | Glu |
| | 115 | | | | | 120 | | | | | 125 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Glu | Lys | Asp | Ser | Lys | Pro | Ile | Lys | Val | Thr | Leu | Pro | Asp | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Val | Asp | Ala | Glu | Ser | Trp | Lys | Thr | Thr | Pro | Tyr | Gln | Ile | Ala |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Gly | Ile | Ser | Gln | Gly | Leu | Ala | Asp | Asn | Thr | Val | Ile | Ala | Lys | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Val | Val | Trp | Asp | Leu | Asp | Arg | Pro | Leu | Glu | Glu | Asp | Cys | Thr |
| | | 180 | | | | | 185 | | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Leu | Leu | Lys | Phe | Glu | Asp | Glu | Glu | Ala | Gln | Ala | Val | Tyr | Trp |
| | 195 | | | | | 200 | | | | | 205 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Ser | Ala | His | Ile | Met | Gly | Glu | Ala | Met | Glu | Arg | Val | Tyr | Gly |
| | 210 | | | | 215 | | | | | 220 | | | | | |

1116

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Leu | Cys | Tyr | Gly | Pro | Pro | Ile | Glu | Asn | Gly | Phe | Tyr | Tyr | Asp | 225 | 230 | 235 | 240 |
| Met | Tyr | Leu | Glu | Glu | Gly | Gly | Val | Ser | Ser | Asn | Asp | Phe | Ser | Ser | Leu | 245 | 250 | 255 | |
| Glu | Ala | Leu | Cys | Lys | Lys | Ile | Ile | Lys | Glu | Lys | Gln | Ala | Phe | Glu | Arg | 260 | 265 | 270 | |
| Leu | Glu | Val | Lys | Lys | Glu | Thr | Leu | Leu | Ala | Met | Phe | Lys | Tyr | Asn | Lys | 275 | 280 | 285 | |
| Phe | Lys | Cys | Arg | Ile | Leu | Asn | Glu | Lys | Val | Asn | Thr | Pro | Thr | Thr | Thr | 290 | 295 | 300 | |
| Val | Tyr | Arg | Cys | Gly | Pro | Leu | Ile | Asp | Leu | Cys | Arg | Gly | Pro | His | Val | 305 | 310 | 315 | 320 |
| Arg | His | Thr | Gly | Lys | Ile | Lys | Ala | Leu | Lys | Ile | His | Lys | Asn | Ser | Ser | 325 | 330 | 335 | |
| Thr | Tyr | Trp | Glu | Gly | Lys | Ala | Asp | Met | Glu | Thr | Leu | Gln | Arg | Ile | Tyr | 340 | 345 | 350 | |
| Gly | Ile | Ser | Phe | Pro | Asp | Pro | Lys | Met | Leu | Lys | Glu | Trp | Glu | Lys | Phe | 355 | 360 | 365 | |
| Gln | Glu | Glu | Ala | Lys | Asn | Arg | Asp | His | Arg | Lys | Ile | Gly | Arg | Asp | Gln | 370 | 375 | 380 | |
| Glu | Leu | Tyr | Phe | Phe | His | Glu | Leu | Ser | Pro | Gly | Ser | Cys | Phe | Phe | Leu | 385 | 390 | 395 | 400 |
| Pro | Lys | Gly | Ala | Tyr | Ile | Tyr | Asn | Ala | Leu | Ile | Glu | Phe | Ile | Arg | Ser | 405 | 410 | 415 | |
| Glu | Tyr | Arg | Lys | Arg | Gly | Phe | Gln | Glu | Val | Val | Thr | Pro | Asn | Ile | Phe | 420 | 425 | 430 | |
| Asn | Ser | Arg | Leu | Trp | Met | Thr | Ser | Gly | His | Trp | Gln | His | Tyr | Ser | Glu | 435 | 440 | 445 | |
| Asn | Met | Phe | Ser | Phe | Glu | Val | Glu | Lys | Glu | Leu | Phe | Ala | Leu | Lys | Pro | 450 | 455 | 460 | |
| Met | Asn | Cys | Pro | Gly | His | Cys | Leu | Met | Phe | Asp | His | Arg | Pro | Arg | Ser | 465 | 470 | 475 | 480 |
| Trp | Arg | Glu | Leu | Pro | Leu | Arg | Leu | Ala | Asp | Phe | Gly | Val | Leu | His | Arg | 485 | 490 | 495 | |

1117

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Glu | Leu | Ser | Gly | Ala | Leu | Thr | Gly | Leu | Thr | Arg | Val | Arg | Arg | Phe | 500 | 505 | 510 |
| Gln | Gln | Asp | Asp | Ala | His | Ile | Phe | Cys | Ala | Met | Glu | Gln | Ile | Glu | Asp | 515 | 520 | 525 |
| Glu | Ile | Lys | Gly | Cys | Leu | Asp | Phe | Leu | Arg | Thr | Val | Tyr | Ser | Val | Phe | 530 | 535 | 540 |
| Gly | Phe | Ser | Phe | Lys | Leu | Asn | Leu | Ser | Thr | Arg | Pro | Glu | Lys | Phe | Leu | 545 | 550 | 555 |
| Gly | Asp | Ile | Glu | Val | Trp | Asp | Gln | Ala | Glu | Lys | Gln | Leu | Glu | Asn | Ser | 565 | 570 | 575 |
| Leu | Asn | Glu | Phe | Gly | Glu | Lys | Trp | Glu | Leu | Asn | Ser | Gly | Asp | Gly | Ala | 580 | 585 | 590 |
| Phe | Tyr | Gly | Pro | Lys | Ile | Asp | Ile | Gln | Ile | Lys | Asp | Ala | Ile | Gly | Arg | 595 | 600 | 605 |
| Tyr | His | Gln | Cys | Ala | Thr | Ile | Gln | Leu | Asp | Phe | Gln | Leu | Pro | Ile | Arg | 610 | 615 | 620 |
| Phe | Asn | Leu | Thr | Tyr | Val | Ser | His | Asp | Gly | Asp | Asp | Lys | Lys | Arg | Pro | 625 | 630 | 635 |
| Val | Ile | Val | His | Arg | Ala | Ile | Leu | Gly | Ser | Val | Glu | Arg | Met | Ile | Ala | 645 | 650 | 655 |
| Ile | Leu | Thr | Glu | Asn | Tyr | Gly | Gly | Lys | Trp | Pro | Phe | Trp | Leu | Ser | Pro | 660 | 665 | 670 |
| Arg | Gln | Val | Met | Val | Val | Pro | Val | Gly | Pro | Thr | Cys | Asp | Glu | Tyr | Ala | 675 | 680 | 685 |
| Gln | Lys | Val | Arg | Gln | Gln | Phe | His | Asp | Ala | Lys | Phe | Met | Ala | Asp | Ile | 690 | 695 | 700 |
| Asp | Leu | Asp | Pro | Gly | Cys | Thr | Leu | Asn | Lys | Lys | Ile | Arg | Asn | Ala | Gln | 705 | 710 | 715 |
| Leu | Ala | Gln | Tyr | Asn | Phe | Ile | Leu | Val | Val | Gly | Glu | Lys | Glu | Lys | Ile | 725 | 730 | 735 |
| Ser | Gly | Thr | Val | Asn | Ile | Arg | Thr | Arg | Asp | Asn | Lys | Val | His | Gly | Glu | 740 | 745 | 750 |
| Arg | Thr | Ile | Ser | Glu | Thr | Ile | Glu | Arg | Leu | Gln | Gln | Leu | Lys | Glu | Phe | 755 | 760 | 765 |

1118

Arg Ser Lys Gln Ala Glu Glu Glu Phe
 770 775

<210> 1116

<211> 360

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1116

Thr Thr Ser Ala Xaa Arg Trp Asp Gly Thr Arg Gly Arg Thr Arg Gly
 1 5 10 15

Arg Thr Xaa Gly Phe Gly Asn Leu Ser Ile Thr Gln Xaa Trp Met Met
 20 25 30

Trp Ala Met Val Ser Xaa Met Glu Ile Asp Gln Pro Ala Gly Thr Gly
 35 40 45

Thr Leu Ser Arg Thr Asn Pro Pro Thr Gln Lys Pro Pro Ser Pro Pro
 50 55 60

Met Ser Gly Arg Gly Thr Leu Gly Arg Asn Thr Pro Tyr Lys Thr Leu
 65 70 75 80

Glu Pro Val Lys Pro Pro Thr Val Pro Asn Asp Tyr Met Thr Ser Pro
 85 90 95

Ala Arg Leu Gly Ser Gln His Ser Pro Gly Arg Thr Ala Ser Leu Asn

1119

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Gln Arg Pro Arg Thr His Ser Gly Ser Ser Gly Gly Ser Gly Ser Arg | | |
| 115 | 120 | 125 |
| Glu Asn Ser Gly Ser Ser Ser Ile Gly Ile Pro Ile Ala Val Pro Thr | | |
| 130 | 135 | 140 |
| Pro Ser Pro Pro Thr Ile Gly Pro Ala Ala Pro Gly Ser Ala Pro Gly | | |
| 145 | 150 | 155 |
| Ser Gln Tyr Gly Thr Met Thr Arg Gln Ile Ser Arg His Asn Ser Thr | | |
| 165 | 170 | 175 |
| Thr Ser Ser Thr Ser Ser Gly Gly Tyr Arg Arg Thr Pro Ser Val Thr | | |
| 180 | 185 | 190 |
| Ala Gln Phe Ser Ala Gln Pro His Val Asn Gly Gly Pro Leu Tyr Ser | | |
| 195 | 200 | 205 |
| Gln Asn Ser Ile Ser Ile Ala Pro Pro Pro Pro Pro Met Pro Gln Leu | | |
| 210 | 215 | 220 |
| Thr Pro Gln Ile Pro Leu Thr Gly Phe Val Ala Arg Val Gln Glu Asn | | |
| 225 | 230 | 235 |
| Ile Ala Asp Ser Pro Thr Pro Pro Pro Pro Pro Pro Pro Asp Asp Ile | | |
| 245 | 250 | 255 |
| Pro Met Phe Asp Asp Ser Pro Pro Pro Pro Pro Pro Pro Val Asp | | |
| 260 | 265 | 270 |
| Tyr Glu Asp Glu Glu Ala Ala Val Val Gln Tyr Asn Asp Pro Tyr Ala | | |
| 275 | 280 | 285 |
| Asp Gly Asp Pro Ala Trp Ala Pro Lys Asn Tyr Ile Glu Lys Val Val | | |
| 290 | 295 | 300 |
| Ala Ile Tyr Asp Tyr Thr Lys Asp Lys Asp Asp Glu Leu Ser Phe Met | | |
| 305 | 310 | 315 |
| Glu Gly Ala Ile Ile Tyr Val Ile Lys Lys Asn Asp Asp Gly Trp Tyr | | |
| 325 | 330 | 335 |
| Glu Gly Val Cys Asn Arg Val Thr Gly Leu Phe Pro Gly Asn Tyr Val | | |
| 340 | 345 | 350 |
| Glu Ser Ile Met His Tyr Thr Asp | | |
| 355 | 360 | |

1120

<210> 1117

<211> 89

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1117

```

Pro Ala Arg Leu Gly Ile Thr Cys His Ser Pro Ala Ile Leu Ser Thr
  1             5             10             15

Ala Leu Trp Gly Gly Ser Ser Pro Ile Pro Asp Ala Pro Thr Thr Gln
          20             25             30

Trp Lys Val Thr Lys Pro Ala Pro Cys Pro Arg Pro Arg Arg Val Glu
          35             40             45

Pro Val Cys Ser Gly Leu Gln Ala Gln Ile Leu His Cys Tyr Arg Asp
          50             55             60

Arg Pro His Glu Val Leu Leu Cys Ser Asp Leu Val Lys Ala Tyr Gln
          65             70             75             80

Arg Cys Val Ser Ala Xaa His Lys Gly
          85

```

<210> 1118

<211> 347

<212> PRT

<213> Homo sapiens

<400> 1118

```

Arg Gly Val Val Asp Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg Glu
  1             5             10             15

Met Leu Gln Gln Ser Lys Ile Leu Lys Val Ile Arg Lys Asn Ile Val
          20             25             30

Lys Lys Cys Leu Glu Leu Phe Ser Glu Leu Ala Glu Asp Lys Glu Asn
          35             40             45

Tyr Lys Lys Phe Tyr Glu Ala Phe Ser Lys Asn Leu Lys Leu Gly Ile
          50             55             60

His Glu Asp Ser Thr Asn Arg Arg Arg Leu Ser Glu Leu Leu Arg Tyr

```

1121

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 |
| His Thr Ser Gln Ser Gly Asp Glu Met Thr Ser Leu Ser Glu Tyr Val | | | | | | |
| | 85 | | 90 | | 95 | |
| Ser Arg Met Lys Glu Thr Gln Lys Ser Ile Tyr Tyr Ile Thr Gly Glu | | | | | | |
| | 100 | | 105 | | 110 | |
| Ser Lys Glu Gln Val Ala Asn Ser Ala Phe Val Glu Arg Val Arg Lys | | | | | | |
| | 115 | | 120 | | 125 | |
| Arg Gly Phe Glu Val Val Tyr Met Thr Glu Pro Ile Asp Glu Tyr Cys | | | | | | |
| | 130 | | 135 | | 140 | |
| Val Gln Gln Leu Lys Glu Phe Asp Gly Lys Ser Leu Val Ser Val Thr | | | | | | |
| 145 | | 150 | | 155 | | 160 |
| Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys Met | | | | | | |
| | 165 | | 170 | | | 175 |
| Glu Glu Ser Lys Ala Lys Phe Glu Asn Leu Cys Lys Leu Met Lys Glu | | | | | | |
| | 180 | | 185 | | | 190 |
| Ile Leu Asp Lys Lys Val Glu Lys Val Thr Ile Ser Asn Arg Leu Val | | | | | | |
| | 195 | | 200 | | 205 | |
| Ser Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala Asn | | | | | | |
| | 210 | | 215 | | 220 | |
| Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr Met | | | | | | |
| 225 | | 230 | | 235 | | 240 |
| Gly Tyr Met Met Ala Lys Lys His Leu Glu Ile Asn Pro Asp His Pro | | | | | | |
| | 245 | | 250 | | | 255 |
| Ile Val Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp Lys | | | | | | |
| | 260 | | 265 | | | 270 |
| Ala Val Lys Asp Leu Val Val Leu Leu Phe Glu Thr Ala Leu Leu Ser | | | | | | |
| | 275 | | 280 | | 285 | |
| Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ser Asn Arg Ile Tyr | | | | | | |
| | 290 | | 295 | | 300 | |
| Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Glu Val Ala Ala | | | | | | |
| 305 | | 310 | | 315 | | 320 |
| Glu Glu Pro Asn Ala Ala Val Pro Asp Glu Ile Pro Pro Leu Glu Gly | | | | | | |
| | 325 | | 330 | | | 335 |
| Asp Glu Asp Ala Ser Arg Met Glu Glu Val Asp | | | | | | |

1122

340

345

<210> 1119

<211> 293

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1119

Pro Gly Ser Pro Asp Val Asn Arg Ala Val Val Arg Pro Pro Pro Pro
 1 5 10 15

Pro Pro Pro Pro Pro Pro Ala Pro Gln Pro Thr Met Ser Arg Arg Lys
 20 25 30

Gln Gly Lys Pro Gln His Leu Ser Lys Arg Glu Phe Ser Pro Glu Pro
 35 40 45

Leu Glu Ala Ile Leu Thr Asp Asp Glu Pro Asp His Gly Pro Leu Gly
 50 55 60

Ala Pro Glu Gly Asp His Asp Leu Leu Thr Cys Gly Gln Cys Gln Met
 65 70 75 80

Asn Phe Pro Leu Gly Asp Ile Leu Ile Phe Ile Glu His Lys Arg Lys
 85 90 95

Gln Cys Asn Gly Ser Leu Cys Leu Glu Lys Ala Val Asp Lys Pro Pro
 100 105 110

Ser Pro Ser Pro Ile Glu Met Lys Lys Ala Ser Asn Pro Val Glu Val
 115 120 125

Gly Ile Gln Val Thr Pro Glu Asp Asp Asp Cys Leu Ser Thr Ser Ser
 130 135 140

Arg Gly Ile Cys Pro Lys Gln Glu His Ile Ala Asp Lys Leu Leu His
 145 150 155 160

Trp Arg Gly Leu Ser Ser Pro Arg Ser Xaa Thr Trp Ser Ser Asn Pro
 165 170 175

His Ala Trp Asp Glu Cys Arg Ile Cys Pro Ala Gly Ile Cys Lys Asp
 180 185 190

1123

Glu Pro Ser Ser Tyr Thr Cys Thr Thr Cys Lys Gln Pro Phe Thr Ser
 195 200 205
 Ala Trp Phe Leu Leu Gln His Ala Gln Asn Thr His Gly Leu Arg Ile
 210 215 220
 Tyr Leu Glu Ser Glu His Gly Ser Pro Leu Thr Pro Arg Val Gly Ile
 225 230 235 240
 Pro Ser Gly Leu Gly Ala Glu Cys Pro Ser Gln Pro Pro Leu His Gly
 245 250 255
 Ile His Ile Ala Asp Asn Asn Pro Phe Asn Leu Leu Arg Ile Pro Gly
 260 265 270
 Ser Val Ser Arg Glu Ala Ser Gly Leu Gly Arg Arg Ala Leu Ser Thr
 275 280 285
 His Ser Pro Pro Val
 290

<210> 1120
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 1120
 Ala Ala Ala Ala Ala Gly Asp Pro Gly Ala Met Gly Arg Ala Arg Asp
 1 5 10 15
 Ala Ile Leu Asp Ala Leu Glu Asn Leu Thr Ala Glu Glu Leu Lys Lys
 20 25 30
 Phe Lys Leu Lys Leu Leu Ser Val Pro Leu Arg Glu Gly Tyr Gly Arg
 35 40 45
 Ile Pro Arg Gly Ala Leu Leu Ser Met Asp Ala Leu Asp Leu Thr Asp
 50 55 60
 Lys Leu Val Ser Phe Tyr Leu Glu Thr Tyr Gly Ala Glu Leu Thr Ala
 65 70 75 80
 Asn Val Leu Arg Asp Met Gly Leu Gln Glu Met Ala Gly Gln Leu Gln
 85 90 95
 Ala Ala Thr His Gln Gly Ser Gly Ala Ala Pro Ala Gly Ile Gln Ala
 100 105 110
 Pro Pro Gln Ser Ala Ala Lys Pro Gly Leu His Phe Ile Asp Gln His

1124

115 120 125
 Arg Ala Ala Leu Ile Ala Arg Val Thr Asn Val Glu Trp Leu Leu Asp
 130 135 140
 Ala Leu Tyr Gly Lys Val Leu Thr Asp Glu Gln Tyr Gln Ala Val Arg
 145 150 155 160
 Pro Ser Pro Pro Thr Gln Ala Arg Cys Gly Ser Ser Ser Val Ser His
 165 170 175
 Gln Pro Gly Thr Gly Pro Ala Arg Thr Cys Ser Ser Arg Pro
 180 185 190

<210> 1121

<211> 217

<212> PRT

<213> Homo sapiens

<400> 1121

Gly Arg Lys Trp Phe Cys Pro Tyr Lys Thr Trp Arg Lys Ala Phe Leu
 1 5 10 15
 Ser Pro Arg Lys Arg His Val Met Ser Gln Ser Cys Gly Ala Arg Ala
 20 25 30
 Glu Val Gln Ala Thr Gly Ser Asp Gly Ala Pro Thr Lys Ala Leu Gly
 35 40 45
 Leu Val Arg Val Ala Ala Val Ser Ser Asp Ser Cys Val Val Pro Met
 50 55 60
 Val Glu Lys Lys Thr Ser Val Arg Ser Gln Asp Pro Gly Gln Arg Arg
 65 70 75 80
 Val Leu Asp Arg Ala Ala Arg Gln Arg Arg Ile Asn Arg Gln Leu Glu
 85 90 95
 Ala Leu Glu Asn Asp Asn Phe Gln Asp Asp Pro His Ala Gly Leu Pro
 100 105 110
 Gln Leu Gly Lys Arg Leu Pro Gln Phe Asp Asp Asp Ala Asp Thr Gly
 115 120 125
 Lys Lys Lys Lys Lys Thr Arg Gly Asp His Phe Lys Leu Arg Phe Arg
 130 135 140
 Lys Asn Phe Gln Ala Leu Leu Glu Glu Gln Asn Leu Ser Val Ala Glu
 145 150 155 160

1125

Gly Pro Asn Tyr Leu Thr Ala Cys Ala Gly Pro Pro Ser Arg Pro Gln
165 170 175

Arg Pro Phe Cys Ala Val Cys Gly Phe Pro Ser Pro Tyr Thr Cys Val
180 185 190

Ser Cys Gly Ala Arg Tyr Cys Thr Val Arg Cys Leu Gly Thr His Gln
195 200 205

Glu Thr Arg Cys Leu Lys Trp Thr Val
210 215

<210> 1122
<211> 112
<212> PRT
<213> Homo sapiens

<400> 1122
Gly Asn Cys Gln Lys Cys Ala Phe Gly Tyr Ser Gly Leu Asp Cys Lys
1 5 10 15

Asp Lys Phe Gln Leu Ile Leu Thr Ile Val Gly Thr Ile Ala Gly Ile
20 25 30

Val Ile Leu Ser Met Ile Ile Ala Leu Ile Val Thr Ala Arg Ser Asn
35 40 45

Asn Lys Thr Lys His Ile Glu Glu Glu Asn Leu Ile Asp Glu Asp Phe
50 55 60

Gln Asn Leu Lys Leu Arg Ser Thr Gly Phe Thr Asn Leu Gly Ala Glu
65 70 75 80

Gly Ser Val Phe Pro Lys Val Arg Ile Thr Ala Ser Arg Asp Ser Gln
85 90 95

Met Gln Asn Pro Tyr Ser Ser His Ser Ser Met Pro Arg Pro Asp Tyr
100 105 110

<210> 1123
<211> 216
<212> PRT
<213> Homo sapiens

1126

<400> 1123

Gly Lys Leu Val Cys Gly Met Val Ser Tyr Leu Asn Asp Leu Pro Ser
 1 5 10 15
 Gln Arg Ile Gln Pro Gln Gln Val Ala Val Trp Pro Thr Met Val Asp
 20 25 30
 Ile Asn Ser Pro Glu Ser Leu Thr Glu Ala Tyr Lys Leu Arg Ala Ala
 35 40 45
 Arg Leu Val Glu Ile Ala Ala Lys Asn Leu Gln Lys Glu Val Ile His
 50 55 60
 Arg Lys Ser Lys Glu Val Ala Trp Asn Leu Thr Ser Val Asp Leu Val
 65 70 75 80
 Arg Ala Ser Glu Ala His Cys His Tyr Val Val Val Lys Leu Phe Ser
 85 90 95
 Glu Lys Leu Leu Lys Ile Gln Asp Lys Ala Ile Gln Ala Val Leu Arg
 100 105 110
 Ser Leu Cys Leu Leu Tyr Ser Leu Tyr Gly Ile Ser Gln Asn Ala Gly
 115 120 125
 Asp Phe Leu Gln Gly Ser Ile Met Thr Glu Pro Gln Ile Thr Gln Val
 130 135 140
 Asn Gln Arg Val Lys Glu Leu Leu Thr Leu Ile Arg Ser Asp Ala Val
 145 150 155 160
 Ala Leu Val Asp Ala Phe Asp Phe Gln Asp Val Thr Leu Gly Ser Val
 165 170 175
 Leu Gly Arg Tyr Asp Gly Asn Val Tyr Glu Asn Leu Phe Glu Trp Ala
 180 185 190
 Lys Asn Ser Pro Leu Asn Lys Ala Glu Val His Glu Ser Tyr Lys His
 195 200 205
 Leu Lys Ser Leu Gln Ser Lys Leu
 210 215

<210> 1124

<211> 218

<212> PRT

<213> Homo sapiens

1127

<400> 1124

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Pro Ser Pro Arg Pro Pro Asp Pro Glu Ser Ser Gln Leu Arg Pro Gly
 1              5              10              15

Gly Asp Gly Ala Glu Leu Arg Val Leu Val Asp Met Asp Gly Val Leu
      20              25              30

Ala Asp Phe Glu Ala Gly Leu Leu Arg Gly Phe Arg Arg Arg Phe Pro
      35              40              45

Glu Glu Pro His Val Pro Leu Glu Gln Arg Arg Gly Phe Leu Ala Arg
      50              55              60

Glu Gln Tyr Arg Ala Leu Arg Pro Asp Leu Ala Asp Lys Val Ala Ser
      65              70              75              80

Val Tyr Glu Ala Pro Gly Phe Phe Leu Asp Leu Glu Pro Ile Pro Gly
      85              90              95

Ala Leu Asp Ala Val Arg Glu Met Asn Asp Leu Pro Asp Thr Gln Val
      100              105              110

Phe Ile Cys Thr Ser Pro Leu Leu Lys Tyr His His Cys Val Gly Glu
      115              120              125

Lys Tyr Arg Trp Val Glu Gln His Leu Gly Pro Gln Phe Val Glu Arg
      130              135              140

Ile Ile Leu Thr Arg Asp Lys Thr Val Val Leu Gly Asp Leu Leu Ile
      145              150              155              160

Asp Asp Lys Asp Thr Val Arg Gly Gln Glu Glu Thr Pro Ser Trp Glu
      165              170              175

His Ile Leu Phe Thr Cys Cys His Asn Arg His Leu Val Leu Pro Pro
      180              185              190

Thr Arg Arg Arg Leu Leu Ser Trp Ser Asp Asn Trp Arg Glu Ile Leu
      195              200              205

Asp Ser Lys Arg Gly Ala Ala Gln Arg Glu
      210              215

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<210> 1125

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1125

1128

Met Arg Arg Arg Val Phe Phe Leu His Arg Cys Ser Ile Leu Val Phe
 1 5 10 15

Leu Phe Pro Cys Lys Cys Asn Gln Met Pro Phe Tyr Met Trp Thr Tyr
 20 25 30

Leu Tyr Trp Pro Asn Ile Phe Phe Leu Leu Ser Leu Phe Phe Phe Pro
 35 40 45

Phe Phe Leu Leu Pro Leu Phe Leu Tyr Ser Phe Leu Phe Leu Phe Phe
 50 55 60

Phe Phe Phe Ser Phe Phe Phe Gly Ser Cys Cys Tyr Pro Arg His Phe
 65 70 75 80

Thr Ser Pro Ser Leu Lys Gly
 85

<210> 1126

<211> 174

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (173)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1126

Pro Pro Leu Gly Lys Lys Xaa Glu Leu His Arg Gly Gly Gly Arg Ser
 1 5 10 15

Arg Leu Glu Glu Phe Gln Met Arg Ala Arg Pro Arg Pro Arg Pro Leu
 20 25 30

Trp Ala Thr Val Leu Ala Leu Gly Ala Leu Ala Gly Val Gly Val Gly
 35 40 45

Gly Pro Asn Ile Cys Thr Thr Arg Gly Val Ser Ser Cys Gln Gln Cys
 50 55 60

Leu Ala Val Ser Pro Met Cys Ala Trp Cys Ser Asp Glu Ala Leu Pro
 65 70 75 80

1129

Leu Gly Ser Pro Arg Cys Asp Leu Lys Glu Asn Leu Leu Lys Asp Asn
 85 90 95
 Cys Ala Pro Glu Ser Ile Glu Phe Pro Val Ser Glu Ala Arg Val Leu
 100 105 110
 Glu Asp Arg Pro Leu Ser Asp Lys Gly Ser Gly Asp Ser Ser Gln Val
 115 120 125
 Thr Gln Val Ser Pro Gln Arg Ile Ala Leu Arg Leu Arg Pro Asp Asp
 130 135 140
 Ser Lys Asn Phe Ser Ile Gln Val Arg Gln Val Glu Asp Tyr Pro Val
 145 150 155 160
 Asp Ile Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Xaa Gly
 165 170

<210> 1127

<211> 359

<212> PRT

<213> Homo sapiens

<400> 1127

Pro Gln Pro Phe Gln Gly Ser Gly Cys Val Ile Ala Ile Leu Gly Lys
 1 5 10 15
 Arg Cys Ser Arg Pro Trp Arg Thr Trp Arg Gly Arg Thr Pro Ser Thr
 20 25 30
 Arg His Ile Cys Ser Trp Cys Thr Met Val Ser Gly Thr Ser Ala Ala
 35 40 45
 Val Glu Glu Tyr Ser Cys Glu Phe Gly Ser Ala Lys Tyr Tyr Ala Leu
 50 55 60
 Cys Gly Phe Gly Gly Val Leu Ser Cys Gly Leu Thr His Thr Ala Val
 65 70 75 80
 Val Pro Leu Asp Leu Val Lys Cys Arg Met Gln Val Asp Pro Gln Lys
 85 90 95
 Tyr Lys Gly Ile Phe Asn Gly Phe Ser Val Thr Leu Lys Glu Asp Gly
 100 105 110
 Val Arg Gly Leu Ala Lys Gly Trp Ala Pro Thr Phe Leu Gly Tyr Ser
 115 120 125
 Met Gln Gly Leu Cys Lys Phe Gly Phe Tyr Glu Val Phe Lys Val Leu

1130

| | | |
|---|-----|-------------|
| 130 | 135 | 140 |
| Tyr Ser Asn Met Leu Gly Glu Glu Asn Thr Tyr Leu Trp Arg Thr Ser | | |
| 145 | 150 | 155 160 |
| Leu Tyr Leu Ala Ala Ser Ala Ser Ala Glu Phe Phe Ala Asp Ile Ala | | |
| | 165 | 170 175 |
| Leu Ala Pro Met Glu Ala Ala Lys Val Arg Ile Gln Thr Gln Pro Gly | | |
| | 180 | 185 190 |
| Tyr Ala Asn Thr Leu Arg Asp Ala Ala Pro Lys Met Tyr Lys Glu Glu | | |
| | 195 | 200 205 |
| Gly Leu Lys Ala Phe Tyr Lys Gly Val Ala Pro Leu Trp Met Arg Gln | | |
| | 210 | 215 220 |
| Ile Pro Tyr Thr Met Met Lys Phe Ala Cys Phe Glu Arg Thr Val Glu | | |
| | 225 | 230 235 240 |
| Ala Leu Tyr Lys Phe Val Val Pro Lys Pro Arg Ser Glu Cys Ser Lys | | |
| | 245 | 250 255 |
| Pro Glu Gln Leu Val Val Thr Phe Val Ala Gly Tyr Ile Ala Gly Val | | |
| | 260 | 265 270 |
| Phe Cys Ala Ile Val Ser His Pro Ala Asp Ser Val Val Ser Val Leu | | |
| | 275 | 280 285 |
| Asn Lys Glu Lys Gly Ser Ser Ala Ser Leu Val Leu Lys Arg Leu Gly | | |
| | 290 | 295 300 |
| Phe Lys Gly Val Trp Lys Gly Leu Phe Ala Arg Ile Ile Met Ile Gly | | |
| | 305 | 310 315 320 |
| Thr Leu Thr Ala Leu Gln Trp Phe Ile Tyr Asp Ser Val Lys Val Tyr | | |
| | 325 | 330 335 |
| Phe Arg Leu Pro Arg Pro Pro Pro Pro Glu Met Pro Glu Ser Leu Lys | | |
| | 340 | 345 350 |
| Lys Lys Leu Gly Leu Thr Gln | | |
| | 355 | |

<210> 1128

<211> 399

<212> PRT

<213> Homo sapiens

1131

<220>

<221> SITE

<222> (208)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (349)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1128

Leu Glu Pro Pro Ala Glu Pro Leu Gln Tyr Leu Ala Cys Tyr Arg Phe
 1 5 10 15

His Cys Ser His Gln Leu Gly Asp Asn Met Trp Phe Leu Thr Thr Leu
 20 25 30

Leu Leu Trp Val Pro Val Asp Gly Gln Val Asp Thr Thr Lys Ala Val
 35 40 45

Ile Thr Leu Gln Pro Pro Trp Val Ser Val Phe Gln Glu Glu Thr Val
 50 55 60

Thr Leu His Cys Glu Val Leu His Leu Pro Gly Ser Ser Ser Thr Gln
 65 70 75 80

Trp Phe Leu Asn Gly Thr Ala Thr Gln Thr Ser Thr Pro Ser Tyr Arg
 85 90 95

Ile Thr Ser Ala Ser Val Asn Asp Ser Gly Glu Tyr Arg Cys Gln Arg
 100 105 110

Gly Leu Ser Gly Arg Ser Asp Pro Ile Gln Leu Glu Ile His Arg Gly
 115 120 125

Trp Leu Leu Leu Gln Val Ser Ser Arg Val Phe Thr Glu Gly Glu Pro
 130 135 140

Leu Ala Leu Arg Cys His Ala Trp Lys Asp Lys Leu Val Tyr Asn Val
 145 150 155 160

Leu Tyr Tyr Arg Asn Gly Lys Ala Phe Lys Phe Phe His Trp Asn Ser
 165 170 175

Asn Leu Thr Ile Leu Lys Thr Asn Ile Ser His Asn Gly Thr Tyr His
 180 185 190

Cys Ser Gly Met Gly Lys His Arg Tyr Thr Ser Ala Gly Ile Ser Xaa
 195 200 205

Thr Val Lys Glu Leu Phe Pro Ala Pro Val Leu Asn Ala Ser Val Thr

1132

| | | |
|---|-----|---------|
| 210 | 215 | 220 |
| Ser Pro Leu Leu Glu Gly Asn Leu Val Thr Leu Ser Cys Glu Thr Lys | | |
| 225 | 230 | 235 240 |
| Leu Leu Leu Gln Arg Pro Gly Leu Gln Leu Tyr Phe Ser Phe Tyr Met | | |
| | 245 | 250 255 |
| Gly Ser Lys Thr Leu Arg Gly Arg Asn Thr Ser Ser Glu Tyr Gln Ile | | |
| | 260 | 265 270 |
| Leu Thr Ala Arg Arg Glu Asp Ser Gly Leu Tyr Trp Cys Glu Ala Ala | | |
| | 275 | 280 285 |
| Thr Glu Asp Gly Asn Val Leu Lys Arg Ser Pro Glu Leu Glu Leu Gln | | |
| | 290 | 295 300 |
| Val Leu Gly Leu Gln Leu Pro Thr Pro Val Trp Phe His Val Leu Phe | | |
| 305 | 310 | 315 320 |
| Tyr Leu Ala Val Gly Ile Met Phe Leu Val Asn Thr Val Leu Trp Val | | |
| | 325 | 330 335 |
| Thr Ile Arg Lys Glu Leu Lys Arg Lys Lys Lys Trp Xaa Leu Glu Ile | | |
| | 340 | 345 350 |
| Ser Leu Asp Ser Gly His Glu Lys Lys Val Ile Ser Ser Leu Gln Glu | | |
| | 355 | 360 365 |
| Asp Arg His Leu Glu Glu Glu Leu Lys Cys Gln Glu Gln Lys Glu Glu | | |
| | 370 | 375 380 |
| Gln Leu Gln Glu Gly Val His Arg Lys Glu Pro Gln Gly Ala Thr | | |
| 385 | 390 | 395 |

<210> 1129

<211> 147

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

1133

<400> 1129

Glu Ile Leu Phe Ile Phe Xaa Xaa Phe Phe Lys Gly Leu Ser Asn Ser
 1 5 10 15
 Ala Ala Ala Met Ala Pro Val Lys Lys Leu Val Val Lys Gly Gly Lys
 20 25 30
 Lys Lys Lys Gln Val Leu Lys Phe Thr Leu Asp Cys Thr His Pro Val
 35 40 45
 Glu Asp Gly Ile Met Asp Ala Ala Asn Phe Glu Gln Phe Leu Gln Glu
 50 55 60
 Arg Ile Lys Val Asn Gly Lys Ala Gly Asn Leu Gly Gly Gly Val Val
 65 70 75 80
 Thr Ile Glu Arg Ser Lys Ser Lys Ile Thr Val Thr Ser Glu Val Pro
 85 90 95
 Phe Ser Lys Arg Tyr Leu Lys Tyr Leu Thr Lys Lys Tyr Leu Lys Lys
 100 105 110
 Asn Asn Leu Arg Asp Trp Leu Arg Val Val Ala Asn Ser Lys Glu Ser
 115 120 125
 Tyr Glu Leu Arg Tyr Phe Gln Ile Asn Gln Asp Glu Glu Glu Glu Glu
 130 135 140
 Asp Glu Asp
 145

<210> 1130

<211> 91

<212> PRT

<213> Homo sapiens

<400> 1130

Asn Cys Ser Pro Ala Phe Tyr Gly Ser Ser Leu Pro Cys Pro Gln Thr
 1 5 10 15
 Gln Gln Lys Arg Arg Gly Arg Ile Arg Gly Leu Ser Arg Pro Ala Pro
 20 25 30
 Leu Pro Thr Cys His Thr Arg Cys Glu Phe Glu His Ser Pro Glu Met
 35 40 45
 Glu Thr Ser His Pro Gln Leu Asn Asn Gly Pro Phe Met Pro Thr Leu
 50 55 60

1134

Pro Thr Arg Arg Gly Gln Arg Cys Thr Arg Arg Pro Ser Ser Ser Pro
 65 70 75 80

Ser Ser Ala Pro Ser His Tyr Ser Trp Phe Tyr
 85 90

<210> 1131

<211> 510

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (228)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (352)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1131

Thr Ser Glu Glu Ser Arg Pro Arg Leu Ser Gln Leu Ser Val Thr Asp
 1 5 10 15

Val Thr Thr Ser Ser Leu Arg Leu Asn Trp Glu Ala Pro Pro Gly Ala
 20 25 30

Phe Asp Ser Phe Leu Leu Arg Phe Gly Val Pro Ser Pro Ser Thr Leu
 35 40 45

Glu Pro His Pro Arg Pro Leu Leu Gln Arg Glu Leu Met Val Pro Gly
 50 55 60

Thr Arg His Ser Ala Val Leu Arg Asp Leu Arg Ser Gly Thr Leu Tyr
 65 70 75 80

Ser Leu Thr Leu Tyr Gly Leu Arg Gly Pro His Lys Ala Asp Ser Ile
 85 90 95

Gln Gly Thr Ala Arg Thr Leu Ser Pro Val Leu Glu Ser Pro Arg Asp
 100 105 110

Leu Gln Phe Ser Glu Ile Arg Glu Thr Ser Ala Lys Val Asn Trp Met
 115 120 125

Pro Pro Pro Ser Arg Ala Asp Ser Phe Lys Val Ser Tyr Gln Leu Ala
 130 135 140

1135

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Gly | Glu | Pro | Gln | Ser | Val | Gln | Val | Asp | Gly | Gln | Ala | Arg | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Lys | Leu | Gln | Gly | Leu | Ile | Pro | Gly | Ala | Arg | Tyr | Glu | Val | Thr | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Ser | Val | Arg | Gly | Phe | Glu | Glu | Ser | Glu | Pro | Leu | Thr | Gly | Phe | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Thr | Val | Pro | Asp | Gly | Pro | Thr | Gln | Leu | Arg | Ala | Leu | Asn | Leu | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Gly | Phe | Ala | Val | Leu | His | Trp | Lys | Pro | Pro | Gln | Asn | Pro | Val | Asp |
| | 210 | | | | | 215 | | | | 220 | | | | | |
| Thr | Tyr | Asp | Xaa | Gln | Val | Thr | Ala | Pro | Gly | Ala | Pro | Pro | Leu | Gln | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Thr | Pro | Gly | Ser | Ala | Val | Asp | Tyr | Pro | Leu | His | Asp | Leu | Val | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| His | Thr | Asn | Tyr | Thr | Ala | Thr | Val | Arg | Gly | Leu | Arg | Gly | Pro | Asn | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Thr | Ser | Pro | Ala | Ser | Ile | Thr | Phe | Thr | Thr | Gly | Leu | Glu | Ala | Pro | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Leu | Glu | Ala | Lys | Glu | Val | Thr | Pro | Arg | Thr | Ala | Leu | Leu | Thr | Trp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Glu | Pro | Pro | Val | Arg | Pro | Ala | Gly | Tyr | Leu | Leu | Ser | Phe | His | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Pro | Gly | Gly | Gln | Thr | Gln | Glu | Ile | Leu | Leu | Pro | Gly | Gly | Ile | Thr | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| His | Gln | Leu | Leu | Gly | Leu | Phe | Pro | Ser | Thr | Ser | Tyr | Asn | Ala | Arg | Xaa |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gln | Ala | Met | Trp | Gly | Gln | Ser | Leu | Leu | Pro | Pro | Val | Ser | Thr | Ser | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Thr | Gly | Gly | Leu | Arg | Ile | Pro | Phe | Pro | Arg | Asp | Cys | Gly | Glu | Glu |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Met | Gln | Asn | Gly | Ala | Gly | Ala | Ser | Arg | Thr | Ser | Thr | Ile | Phe | Leu | Asn |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Asn | Arg | Glu | Arg | Pro | Leu | Asn | Val | Phe | Cys | Asp | Met | Glu | Thr | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |

1136

Gly Gly Gly Trp Leu Val Phe Gln Arg Arg Met Asp Gly Gln Thr Asp
420 425 430

Phe Trp Arg Asp Trp Glu Asp Tyr Ala His Gly Phe Gly Asn Ile Ser
435 440 445

Gly Glu Phe Trp Leu Gly Asn Glu Ala Leu His Ser Leu Thr Gln Ala
450 455 460

Gly Asp Tyr Ser Met Arg Val Asp Leu Arg Ala Gly Asp Glu Ala Val
465 470 475 480

Phe Ala Gln Tyr Asp Ser Phe His Val Asp Ser Ala Ala Glu Tyr Tyr
485 490 495

Arg Leu His Leu Glu Gly Tyr His Gly Thr Ala Gly Thr Pro
500 505 510

<210> 1132

<211> 430

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (182)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (408)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (410)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (414)

<223> Xaa equals any of the naturally occurring L-amino acids

1137

<220>

<221> SITE

<222> (420)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (428)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1132

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Ala | Asp | Gln | Thr | Val | Thr | Ala | Ala | Leu | Thr | Lys | Arg | Ser | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Ser | Ser | Ser | Pro | Gln | Arg | Arg | Thr | Glu | Gln | Thr | Ala | Glu | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Ser | Pro | Ser | Ala | Pro | Pro | His | Arg | Trp | Cys | Ile | Pro | Trp | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Leu | Leu | Thr | Ala | Ser | Leu | Leu | Thr | Phe | Trp | Asn | Pro | Pro | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Lys | Leu | Thr | Ile | Glu | Ser | Thr | Pro | Phe | Asn | Val | Ala | Glu | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Val | Leu | Leu | Leu | Val | His | Asn | Leu | Pro | Gln | His | Leu | Phe | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ser | Trp | Tyr | Lys | Gly | Glu | Arg | Val | Asp | Gly | Asn | Arg | Gln | Ile | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Tyr | Val | Ile | Gly | Thr | Gln | Gln | Ala | Thr | Pro | Gly | Pro | Ala | Tyr | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Glu | Ile | Ile | Tyr | Pro | Asn | Ala | Ser | Leu | Leu | Ile | Gln | Asn | Ile |
| | 130 | | | | | | 135 | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Asn | Asp | Thr | Gly | Phe | Tyr | Thr | Leu | His | Val | Ile | Lys | Ser | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Asn | Glu | Glu | Ala | Thr | Gly | Gln | Phe | Arg | Val | Tyr | Pro | Glu | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Pro | Ser | Ile | Xaa | Ser | Asn | Asn | Ser | Lys | Pro | Val | Glu | Asp | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Val | Ala | Phe | Thr | Cys | Glu | Pro | Glu | Thr | Gln | Asp | Ala | Thr | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Trp | Trp | Val | Asn | Asn | Gln | Xaa | Leu | Pro | Val | Ser | Pro | Arg | Leu | Gln |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1138

| 210 | 215 | 220 |
|---|-----|---------|
| Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn | | |
| 225 | 230 | 235 240 |
| Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg | | |
| | 245 | 250 255 |
| Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro | | |
| | 260 | 265 270 |
| Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn | | |
| | 275 | 280 285 |
| Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe | | |
| 290 | 295 | 300 |
| Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn | | |
| 305 | 310 | 315 320 |
| Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser | | |
| | 325 | 330 335 |
| Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala | | |
| | 340 | 345 350 |
| Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu | | |
| | 355 | 360 365 |
| Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr | | |
| 370 | 375 | 380 |
| Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg | | |
| 385 | 390 | 395 400 |
| Leu His Leu Pro Met Thr Thr Xaa Pro Xaa Leu Tyr Ser Xaa Ala Gln | | |
| | 405 | 410 415 |
| Gly Met Met Xaa Asp Pro Met Asn Val Glu Ser Xaa Thr Asn | | |
| | 420 | 425 430 |

<210> 1133

<211> 737

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

1139

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (308)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (534)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (535)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1133

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | His | Ala | Ser | Ala | Ala | Xaa | Pro | Thr | Val | Thr | Ala | Ala | Leu | Thr | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Leu | Glu | Leu | Lys | Leu | Ser | Thr | Lys | Arg | Trp | Thr | Glu | Lys | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Thr | Met | Gly | Pro | Pro | Ser | Ala | Pro | Pro | Cys | Arg | Leu | His | Val |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Trp | Lys | Glu | Val | Leu | Leu | Thr | Ala | Ser | Leu | Leu | Thr | Phe | Trp | Asn |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Thr | Thr | Ala | Lys | Leu | Thr | Ile | Glu | Ser | Thr | Pro | Phe | Asn | Val |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1140

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | | 75 | | | | 80 |
| Ala | Glu | Gly | Lys | Glu | Val | Leu | Leu | Leu | Ala | His | Asn | Leu | Pro | Gln | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Ile | Gly | Tyr | Ser | Trp | Tyr | Lys | Gly | Glu | Arg | Val | Asp | Gly | Asn | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ile | Val | Gly | Tyr | Val | Ile | Gly | Thr | Gln | Gln | Ala | Thr | Pro | Gly | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Tyr | Ser | Gly | Arg | Glu | Thr | Ile | Tyr | Pro | Asn | Xaa | Ser | Leu | Leu | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Asn | Val | Thr | Gln | Asn | Asp | Thr | Gly | Phe | Tyr | Thr | Leu | Gln | Val | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Ser | Asp | Leu | Val | Asn | Glu | Glu | Ala | Thr | Gly | Gln | Phe | His | Val | Tyr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Pro | Glu | Leu | Pro | Lys | Pro | Ser | Ile | Ser | Xaa | Asn | Asn | Ser | Asn | Pro | Val |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Glu | Xaa | Lys | Asp | Ala | Val | Ala | Phe | Thr | Cys | Glu | Pro | Glu | Val | Gln | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Thr | Tyr | Leu | Trp | Trp | Val | Asn | Gly | Gln | Ser | Leu | Pro | Val | Ser | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Leu | Gln | Leu | Ser | Asn | Gly | Asn | Met | Thr | Leu | Thr | Leu | Leu | Ser | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Arg | Asn | Asp | Ala | Gly | Ser | Tyr | Glu | Cys | Glu | Ile | Gln | Asn | Pro | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Ala | Asn | Arg | Ser | Asp | Pro | Val | Thr | Leu | Asn | Val | Leu | Tyr | Gly | Pro |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Gly | Pro | Thr | Ile | Ser | Pro | Ser | Lys | Ala | Asn | Tyr | Arg | Pro | Gly | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asn | Leu | Asn | Leu | Ser | Cys | His | Ala | Ala | Ser | Asn | Pro | Pro | Ala | Gln | Tyr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Trp | Phe | Xaa | Asn | Gly | Thr | Phe | Gln | Gln | Ser | Thr | Gln | Glu | Leu | Phe |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Pro | Asn | Ile | Thr | Val | Asn | Asn | Ser | Gly | Ser | Tyr | Thr | Cys | Gln | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| His | Asn | Ser | Asp | Thr | Gly | Leu | Asn | Arg | Thr | Thr | Val | Thr | Thr | Ile | Thr |

1141

| | | |
|---|-----|-----|
| 340 | 345 | 350 |
| Val Tyr Ala Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn | | |
| 355 | 360 | 365 |
| Pro Val Glu Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile | | |
| 370 | 375 | 380 |
| Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val | | |
| 385 | 390 | 395 |
| Ser Pro Arg Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu | | |
| 405 | 410 | 415 |
| Ser Val Thr Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn | | |
| 420 | 425 | 430 |
| Glu Leu Ser Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr | | |
| 435 | 440 | 445 |
| Gly Pro Asp Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro | | |
| 450 | 455 | 460 |
| Gly Val Asn Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala | | |
| 465 | 470 | 475 |
| Gln Tyr Ser Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu | | |
| 485 | 490 | 495 |
| Leu Phe Ile Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys | | |
| 500 | 505 | 510 |
| Gln Ala Asn Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr | | |
| 515 | 520 | 525 |
| Ile Thr Val Ser Ala Xaa Xaa Pro Lys Pro Ser Ile Ser Ser Asn Asn | | |
| 530 | 535 | 540 |
| Ser Lys Pro Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro | | |
| 545 | 550 | 555 |
| Glu Ala Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu | | |
| 565 | 570 | 575 |
| Pro Val Ser Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr | | |
| 580 | 585 | 590 |
| Leu Phe Asn Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile | | |
| 595 | 600 | 605 |
| Gln Asn Ser Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val | | |

1142

| | | | | |
|---|-----|-----|-----|-----|
| 610 | | 615 | | 620 |
| Leu Tyr Gly Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr | | | | |
| 625 | | 630 | | 635 |
| | | | | 640 |
| Leu Ser Gly Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro | | | | |
| | 645 | | 650 | 655 |
| Ser Pro Gln Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr | | | | |
| | 660 | | 665 | 670 |
| Gln Val Leu Phe Ile Ala Lys Ile Thr Pro Asn Asn Asn Gly Thr Tyr | | | | |
| | 675 | | 680 | 685 |
| Ala Cys Phe Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val | | | | |
| | 690 | | 695 | 700 |
| Lys Ser Ile Thr Val Ser Ala Ser Gly Thr Ser Pro Gly Leu Ser Ala | | | | |
| | 705 | | 710 | 715 |
| | | | | 720 |
| Gly Ala Thr Val Gly Ile Met Ile Gly Val Leu Val Gly Val Ala Leu | | | | |
| | 725 | | 730 | 735 |

Ile

<210> 1134

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1134

| |
|---|
| Phe Gly Thr Xaa Arg Ser Val Val Leu Leu Leu Val Ala Val Arg Leu |
| 1 5 10 15 |

| |
|---|
| His Thr Leu Leu Ser Cys Pro Leu Glu Gln Pro Ala Gly Thr Glu Trp |
| 20 25 30 |

| |
|---|
| Ile Leu Glu Glu Gly Val Thr Thr Gly Pro Pro Arg Lys Pro Arg Ala |
| 35 40 45 |

| |
|---|
| Asp Ile Tyr Asn Leu Arg Ser Pro Asp Glu Phe Ile Val Gly Gln Asn |
| 50 55 60 |

1143

Gln Ala Leu Ile Glu Pro Gly
65 70

<210> 1135

<211> 244

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1135

Gly Leu Arg Arg Leu Asp Ser Ala Ser Gly Thr Val Tyr Thr Ala Met
1 5 10 15

Asp Val Ala Thr Gly Gln Glu Val Ala Ile Lys Gln Met Asn Leu Gln
20 25 30

Gln Gln Pro Lys Lys Glu Leu Ile Ile Asn Glu Ile Leu Val Met Arg
35 40 45

Glu Asn Lys Asn Pro Asn Ile Val Asn Tyr Leu Asp Ser Tyr Leu Val
50 55 60

Gly Asp Glu Leu Trp Val Val Met Glu Tyr Leu Ala Gly Gly Ser Leu
65 70 75 80

Thr Asp Val Val Thr Glu Thr Cys Met Asp Glu Gly Gln Ile Ala Ala
85 90 95

Val Cys Arg Glu Xaa Leu Gln Ala Leu Glu Phe Leu His Ser Asn Gln
100 105 110

Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met Val Gly Thr Pro Tyr
115 120 125

Trp Met Ala Pro Glu Val Val Thr Arg Lys Ala Tyr Gly Pro Lys Val
130 135 140

Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu Met Ile Glu Gly Glu
145 150 155 160

Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala Leu Tyr Leu Ile Ala
165 170 175

Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu Lys Leu Ser Ala Ile
180 185 190

1144

Phe Arg Asp Phe Leu Asn Arg Cys Leu Glu Met Asp Val Glu Lys Arg
 195 200 205

Gly Ser Ala Lys Glu Leu Leu Gln His Gln Phe Leu Lys Ile Ala Lys
 210 215 220

Pro Leu Ser Ser Leu Thr Pro Leu Ile Ala Ala Ala Lys Glu Ala Thr
 225 230 235 240

Lys Asn Asn His

<210> 1136

<211> 166

<212> PRT

<213> Homo sapiens

<400> 1136

Arg Ala Glu Phe Gly Thr Ser Pro Arg Ala Arg Arg His Glu Cys Cys
 1 5 10 15

Arg Phe Leu Asp Asp Asn Gln Ile Ile Thr Ser Ser Gly Asp Thr Thr
 20 25 30

Cys Ala Leu Trp Asp Ile Glu Thr Gly Gln Gln Thr Val Gly Phe Ala
 35 40 45

Gly His Ser Gly Asp Val Met Ser Leu Ser Leu Ala Pro Asp Gly Arg
 50 55 60

Thr Phe Val Ser Gly Ala Cys Asp Ala Ser Ile Lys Leu Trp Asp Val
 65 70 75 80

Arg Asp Ser Met Cys Arg Gln Thr Phe Ile Gly His Glu Ser Asp Ile
 85 90 95

Asn Ala Val Ala Phe Phe Pro Asn Gly Tyr Ala Phe Thr Thr Gly Ser
 100 105 110

Asp Asp Ala Thr Cys Arg Leu Phe Asp Leu Arg Ala Asp Gln Glu Leu
 115 120 125

Leu Met Tyr Ser His Asp Asn Ile Ile Cys Gly Ile Thr Ser Val Ala
 130 135 140

Phe Ser Arg Ser Asp Gly Cys Cys Ser Leu Ala Thr Thr Thr Ser Thr
 145 150 155 160

1145

Ala Thr Ser Gly Met Pro
165

<210> 1137

<211> 79

<212> PRT

<213> Homo sapiens

<400> 1137

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asn | Asn | Lys | Ser | Leu | Val | Gln | Leu | Lys | His | Ile | Ser | Asn | Asp | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Lys | Phe | Lys | Val | Asp | His | Asp | Arg | Ile | Ile | Lys | Asp | Arg | Lys | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ser | Asn | Leu | Val | Met | Thr | Ile | Ile | Ser | Ile | Phe | Ala | Glu | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Phe | Asn | Phe | Ile | Asn | Met | Leu | Leu | Gln | Leu | Pro | Asp | Leu | Lys | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Ser | Phe | Pro | His | Ser | Gln | Leu | Lys | Val | Arg | Thr | Leu | His | Phe | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 1138

<211> 397

<212> PRT

<213> Homo sapiens

<400> 1138

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Arg | Pro | Ser | Ser | Val | Ser | Arg | Arg | Asp | Lys | Ser | Lys | Gln | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Glu | Ala | Val | Leu | Leu | Pro | Leu | Ser | Leu | Leu | Ser | Met | Met | Asp | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Asn | Thr | Pro | Ala | Lys | Ser | Leu | Asp | Lys | Phe | Ile | Glu | Asp | Tyr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Pro | Asp | Thr | Cys | Phe | Arg | Met | Gln | Ile | Asn | His | Ala | Ile | Asp | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Cys | Gly | Phe | Leu | Lys | Glu | Arg | Cys | Phe | Arg | Gly | Ser | Ser | Tyr | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Cys | Val | Ser | Lys | Val | Val | Lys | Gly | Gly | Ser | Ser | Gly | Lys | Gly | Thr |
| | | | | 85 | | | | 90 | | | | | | 95 | |

1146

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Arg | Gly | Arg | Ser | Asp | Ala | Asp | Leu | Val | Val | Phe | Leu | Ser | Pro | 100 | 105 | 110 | |
| Leu | Thr | Thr | Phe | Gln | Asp | Gln | Leu | Asn | Arg | Arg | Gly | Glu | Phe | Ile | Gln | 115 | 120 | 125 | |
| Glu | Ile | Arg | Arg | Gln | Leu | Glu | Ala | Cys | Gln | Arg | Glu | Arg | Ala | Phe | Ser | 130 | 135 | 140 | |
| Val | Lys | Phe | Glu | Val | Gln | Ala | Pro | Arg | Trp | Gly | Asn | Pro | Arg | Ala | Leu | 145 | 150 | 155 | 160 |
| Ser | Phe | Val | Leu | Ser | Ser | Leu | Gln | Leu | Gly | Glu | Gly | Val | Glu | Phe | Asp | 165 | 170 | 175 | |
| Val | Leu | Pro | Ala | Phe | Asp | Ala | Leu | Asp | Phe | Ala | Arg | Thr | Gly | Gln | Leu | 180 | 185 | 190 | |
| Thr | Gly | Gly | Tyr | Lys | Pro | Asn | Pro | Gln | Ile | Tyr | Val | Lys | Leu | Ile | Glu | 195 | 200 | 205 | |
| Glu | Cys | Thr | Asp | Leu | Gln | Lys | Glu | Gly | Glu | Phe | Ser | Thr | Cys | Phe | Thr | 210 | 215 | 220 | |
| Glu | Leu | Gln | Arg | Asp | Phe | Leu | Lys | Gln | Arg | Pro | Thr | Lys | Leu | Lys | Ser | 225 | 230 | 235 | 240 |
| Leu | Ile | Arg | Leu | Val | Lys | His | Trp | Tyr | Gln | Asn | Cys | Lys | Lys | Lys | Leu | 245 | 250 | 255 | |
| Gly | Lys | Leu | Pro | Pro | Gln | Tyr | Ala | Leu | Glu | Leu | Leu | Thr | Val | Tyr | Ala | 260 | 265 | 270 | |
| Trp | Glu | Arg | Gly | Ser | Met | Lys | Thr | His | Phe | Asn | Thr | Ala | Gln | Gly | Phe | 275 | 280 | 285 | |
| Arg | Thr | Val | Leu | Glu | Leu | Val | Ile | Asn | Tyr | Gln | Gln | Leu | Cys | Ile | Tyr | 290 | 295 | 300 | |
| Trp | Thr | Lys | Tyr | Tyr | Asp | Phe | Lys | Asn | Pro | Ile | Ile | Glu | Lys | Tyr | Leu | 305 | 310 | 315 | 320 |
| Arg | Arg | Gln | Leu | Thr | Lys | Pro | Arg | Pro | Val | Ile | Leu | Asp | Pro | Ala | Asp | 325 | 330 | 335 | |
| Pro | Thr | Gly | Asn | Leu | Gly | Gly | Gly | Asp | Pro | Lys | Gly | Trp | Arg | Gln | Leu | 340 | 345 | 350 | |
| Ala | Gln | Glu | Ala | Glu | Ala | Trp | Leu | Asn | Tyr | Pro | Cys | Phe | Lys | Asn | Trp | 355 | 360 | 365 | |

1147

Asp Gly Ser Pro Val Ser Ser Trp Ile Leu Leu Val Arg Pro Pro Ala
 370 375 380

Ser Ser Leu Pro Phe Ile Pro Ala Pro Leu His Glu Ala
 385 390 395

<210> 1139

<211> 180

<212> PRT

<213> Homo sapiens

<400> 1139

Phe Leu Leu Ser Asn Ala Arg Trp Ser Asn Arg Pro Asp Thr Ala Thr
 1 5 10 15

Ala Leu Ala Gly Gly Ala Val Met Pro Glu Leu Ile Leu Ser Pro Ala
 20 25 30

Thr Ala Pro His Pro Leu Lys Met Phe Ala Cys Ser Lys Phe Val Ser
 35 40 45

Thr Pro Ser Leu Val Lys Ser Thr Ser Gln Leu Leu Ser Arg Pro Leu
 50 55 60

Ser Ala Val Val Leu Lys Arg Pro Glu Ile Leu Thr Asp Glu Ser Leu
 65 70 75 80

Ser Ser Leu Ala Val Ser Cys Pro Leu Thr Ser Leu Val Ser Ser Arg
 85 90 95

Ser Phe Gln Thr Ser Ala Ile Ser Arg Asp Ile Asp Thr Ala Ala Lys
 100 105 110

Phe Ile Gly Ala Gly Ala Ala Thr Val Gly Val Ala Gly Ser Gly Ala
 115 120 125

Gly Ile Gly Thr Val Phe Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn
 130 135 140

Pro Ser Leu Lys Gln Gln Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala
 145 150 155 160

Leu Ser Glu Ala Met Gly Leu Phe Cys Leu Met Val Ala Phe Leu Ile
 165 170 175

Leu Phe Ala Met
 180

1148

<210> 1140

<211> 484

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1140

Trp Leu Leu Arg Ser Pro Gly Lys Leu Thr Ala Arg Glu Arg Ile Ser
 1 5 10 15

Leu Leu Leu Asp Pro Gly Ser Phe Xaa Glu Ser Asp Met Phe Val Glu
 20 25 30

His Arg Cys Ala Asp Phe Gly Met Ala Ala Asp Lys Asn Lys Phe Pro
 35 40 45

Gly Asp Ser Val Val Thr Gly Arg Gly Arg Ile Asn Gly Arg Leu Val
 50 55 60

Tyr Val Phe Ser Gln Asp Phe Thr Val Phe Gly Gly Ser Leu Ser Gly
 65 70 75 80

Ala His Ala Gln Lys Ile Cys Lys Ile Met Asp Gln Ala Ile Thr Val
 85 90 95

Gly Ala Pro Val Ile Gly Leu Asn Asp Ser Gly Gly Ala Arg Ile Gln
 100 105 110

Glu Gly Val Glu Ser Leu Ala Gly Tyr Ala Asp Ile Phe Leu Arg Asn
 115 120 125

Val Thr Ala Ser Gly Val Ile Pro Gln Ile Ser Leu Ile Met Gly Pro
 130 135 140

Cys Ala Gly Gly Ala Val Tyr Ser Pro Ala Leu Thr Asp Phe Thr Phe
 145 150 155 160

Met Val Lys Asp Thr Ser Tyr Leu Phe Ile Thr Gly Pro Asp Val Val
 165 170 175

Lys Ser Val Thr Asn Glu Asp Val Thr Gln Glu Glu Leu Gly Gly Ala
 180 185 190

Lys Thr His Thr Thr Met Ser Gly Val Ala His Arg Ala Phe Glu Asn
 195 200 205

1149

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Asp | Ala | Leu | Cys | Asn | Leu | Arg | Asp | Phe | Phe | Asn | Tyr | Leu | Pro | 210 | 215 | 220 | |
| Leu | Ser | Ser | Gln | Asp | Pro | Ala | Pro | Val | Arg | Glu | Cys | His | Asp | Pro | Ser | 225 | 230 | 235 | 240 |
| Asp | Arg | Leu | Val | Pro | Glu | Leu | Asp | Thr | Ile | Val | Pro | Leu | Glu | Ser | Thr | 245 | 250 | 255 | |
| Lys | Ala | Tyr | Asn | Met | Val | Asp | Ile | Ile | His | Ser | Val | Val | Asp | Glu | Arg | 260 | 265 | 270 | |
| Glu | Phe | Phe | Glu | Ile | Met | Pro | Asn | Tyr | Ala | Lys | Asn | Ile | Ile | Val | Gly | 275 | 280 | 285 | |
| Phe | Ala | Arg | Met | Asn | Gly | Arg | Thr | Val | Gly | Ile | Val | Gly | Asn | Gln | Pro | 290 | 295 | 300 | |
| Lys | Val | Ala | Ser | Gly | Cys | Leu | Asp | Ile | Asn | Ser | Ser | Val | Lys | Gly | Ala | 305 | 310 | 315 | 320 |
| Arg | Phe | Val | Arg | Phe | Cys | Asp | Ala | Phe | Asn | Ile | Pro | Leu | Ile | Thr | Phe | 325 | 330 | 335 | |
| Val | Asp | Val | Pro | Gly | Phe | Leu | Pro | Gly | Thr | Ala | Gln | Glu | Tyr | Gly | Gly | 340 | 345 | 350 | |
| Ile | Ile | Arg | His | Gly | Ala | Lys | Leu | Leu | Tyr | Ala | Phe | Ala | Glu | Ala | Thr | 355 | 360 | 365 | |
| Val | Pro | Lys | Val | Thr | Val | Ile | Thr | Arg | Lys | Ala | Tyr | Gly | Gly | Ala | Tyr | 370 | 375 | 380 | |
| Asp | Val | Met | Ser | Ser | Lys | His | Leu | Cys | Gly | Asp | Thr | Asn | Tyr | Ala | Trp | 385 | 390 | 395 | 400 |
| Pro | Thr | Ala | Glu | Ile | Ala | Val | Met | Gly | Ala | Lys | Gly | Ala | Val | Glu | Ile | 405 | 410 | 415 | |
| Ile | Phe | Lys | Gly | His | Glu | Asn | Val | Glu | Ala | Ala | Gln | Ala | Glu | Tyr | Ile | 420 | 425 | 430 | |
| Glu | Lys | Phe | Ala | Asn | Pro | Phe | Pro | Ala | Ala | Val | Arg | Gly | Phe | Val | Asp | 435 | 440 | 445 | |
| Asp | Ile | Ile | Gln | Pro | Ser | Ser | Thr | Arg | Ala | Arg | Ile | Cys | Cys | Asp | Leu | 450 | 455 | 460 | |
| Asp | Val | Leu | Ala | Ser | Lys | Lys | Val | Gln | Arg | Pro | Trp | Arg | Lys | His | Ala | 465 | 470 | 475 | 480 |

1150

Asn Ile Pro Leu

<210> 1141

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1141

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Glu | Leu | Glu | Arg | Tyr | Val | Thr | Ser | Cys | Leu | Arg | Lys | Lys | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Pro | Gln | Ala | Glu | Lys | Val | Asp | Val | Ile | Ala | Gly | Ser | Ser | Lys | Met |
| | | 20 | | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Phe | Ser | Ser | Ser | Glu | Ser | Glu | Ser | Ser | Ser | Glu | Ser | Ser | Ser |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asp | Ser | Glu | Xaa | Xaa | Glu | Thr | Gly | Pro | Ala |
| | 50 | | | | | 55 | | | | |

<210> 1142

<211> 199

<212> PRT

<213> Homo sapiens

<400> 1142

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Tyr | Lys | Thr | Ile | Ser | Ala | Met | Gln | Thr | Ile | Lys | Cys | Val | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Asp | Gly | Ala | Val | Gly | Lys | Thr | Cys | Leu | Leu | Ile | Ser | Tyr | Thr |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1151

[illegible]

<210> 1143

<211> 171

<212> PRT

<213> Homo sapiens

<400> 1143

Gly Asp Leu Asp Cys Pro Asp Trp Val Leu Ala Glu Ile Ser Thr Leu
1 5 10 15

Ala Lys Met Tyr Glu Lys Ile Leu Lys Leu Thr Ala Asp Ala Lys Phe
20 25 30

Glu Ser Gly Asp Val Lys Ala Thr Val Ala Val Leu Ser Phe Ile Leu
35 40 45

1152

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ala | Ala | Lys | His | Ser | Val | Asp | Gly | Glu | Ser | Leu | Ser | Ser | Glu |
| 50 | | | | | 55 | | | | | 60 | | | | | |
| Leu | Gln | Gln | Leu | Gly | Leu | Pro | Lys | Glu | His | Ala | Ala | Ser | Leu | Cys | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | |
| Cys | Tyr | Glu | Glu | Lys | Gln | Ser | Pro | Leu | Gln | Lys | His | Leu | Arg | Val | Cys |
| 85 | | | | | 90 | | | | | 95 | | | | | |
| Ser | Leu | Arg | Met | Asn | Arg | Leu | Ala | Gly | Val | Gly | Trp | Arg | Val | Asp | Tyr |
| 100 | | | | | 105 | | | | | 110 | | | | | |
| Thr | Leu | Ser | Ser | Ser | Leu | Leu | Gln | Ser | Val | Glu | Glu | Pro | Met | Val | His |
| 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Arg | Leu | Glu | Val | Ala | Ala | Ala | Pro | Gly | Thr | Pro | Ala | Gln | Pro | Val |
| 130 | | | | | 135 | | | | | 140 | | | | | |
| Ala | Met | Ser | Leu | Ser | Ala | Asp | Lys | Phe | Gln | Val | Leu | Leu | Ala | Glu | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | |
| Lys | Gln | Ala | Gln | Thr | Leu | Met | Ser | Ser | Leu | Gly | | | | | |
| 165 | | | | | 170 | | | | | | | | | | |

<210> 1144

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1144

Gln Trp Arg Gln Gly Val Gln Gly Arg Ser Ala Ser Gly Thr Ser Thr
1 5 10 15

1153

Cys Arg Val Ala Arg Xaa Gly Gln Asp Trp Pro Ala Ala Ser Pro Gly
 20 25 30
 Val Asn Leu Arg Asn Xaa Phe Xaa Pro Pro Leu Leu Leu Ala Pro Val
 35 40 45
 Pro Thr Pro Val Ala Pro Ser Leu Gly Ser Pro Leu Leu Leu Ser His
 50 55 60
 Pro Glu Arg Gln Ser Gly Pro Val Thr Gly Gly Ala Gly Glu Gly His
 65 70 75 80
 Arg Cys Ala Ser Pro Gln Thr Val Cys Gln Val Ser Glu Leu Val Thr
 85 90 95
 Arg Pro Ala Ala Gln Pro Ser Ala Ala Ala Gln Pro Ala Ala Pro Ala
 100 105 110
 Gly Gly Arg Thr Pro Gly Arg Ala Gly Pro His Leu Pro Ile Tyr Lys
 115 120 125
 Ile Gly Gln Gly Asn Met Lys Ala Asp Leu Gln Ala Ala Ala Thr Ala
 130 135 140
 Lys Pro Gly Lys Ser Gln Gln
 145 150

<210> 1145
 <211> 70
 <212> PRT
 <213> Homo sapiens

<400> 1145
 Ala Asp Ile Ala Gly Val Leu Ala Ile Arg Pro Asp Glu Leu Arg Phe
 1 5 10 15
 Arg Tyr Ser Met Val Ala Tyr Trp Arg Gln Ala Gly Leu Ser Tyr Ile
 20 25 30
 Arg Tyr Ser Gln Ile Cys Ala Lys Ala Val Arg Asp Ala Leu Lys Thr
 35 40 45
 Glu Phe Lys Ala Asn Ala Glu Lys Thr Ser Gly Ser Asn Val Lys Ile
 50 55 60
 Val Lys Val Lys Lys Glu
 65 70

1154

<210> 1146
 <211> 166
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (56)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1146

Leu His Ala Asn Gln Val Ile His Arg Asp Ile Lys Ser Asp Asn Val
 1 5 10 15

Leu Leu Gly Met Glu Gly Ser Val Lys Leu Thr Asp Phe Gly Phe Cys
 20 25 30

Ala Gln Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met Val Gly Thr
 35 40 45

Pro Tyr Trp Met Ala Pro Glu Xaa Val Thr Arg Lys Ala Tyr Gly Pro
 50 55 60

Lys Val Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu Met Val Glu
 65 70 75 80

Gly Glu Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala Leu Tyr Leu
 85 90 95

Ile Ala Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu Lys Leu Ser
 100 105 110

Pro Ile Phe Arg Asp Phe Leu Asn Arg Cys Leu Glu Met Asp Val Glu
 115 120 125

Lys Arg Gly Ser Ala Lys Glu Leu Leu Gln His Pro Phe Leu Lys Leu
 130 135 140

Ala Lys Pro Leu Ser Ser Leu Thr Pro Leu Ile Met Ala Ala Lys Glu
 145 150 155 160

Ala Met Lys Ser Asn Arg
 165

<210> 1147
 <211> 420
 <212> PRT
 <213> Homo sapiens

1155

<220>

<221> SITE

<222> (203)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1147

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Pro | Pro | Phe | Ser | Val | Arg | Val | Pro | Pro | Trp | Ala | Gly | Leu | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Ser | Pro | Ser | Leu | Met | Ala | Leu | Leu | Arg | Arg | Pro | Thr | Val | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asp | Leu | Glu | Asn | Ile | Asp | Thr | Gly | Val | Asn | Ser | Lys | Val | Lys | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Val | Thr | Ile | Arg | Arg | Thr | Val | Leu | Glu | Glu | Ile | Gly | Asn | Arg | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Arg | Ala | Ala | Gln | Val | Ala | Lys | Lys | Ala | Gln | Asn | Thr | Lys | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Gln | Pro | Thr | Lys | Thr | Thr | Asn | Val | Asn | Lys | Gln | Leu | Lys | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Ser | Val | Lys | Pro | Val | Gln | Met | Glu | Lys | Leu | Ala | Pro | Lys | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Pro | Thr | Pro | Glu | Asp | Val | Ser | Met | Lys | Glu | Glu | Asn | Leu | Cys |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Phe | Ser | Asp | Ala | Leu | Leu | Cys | Lys | Ile | Glu | Asp | Ile | Asp | Asn |
| | 130 | | | | | 135 | | | | | | 140 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Trp | Glu | Asn | Pro | Gln | Leu | Cys | Ser | Asp | Tyr | Val | Lys | Asp | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gln | Tyr | Leu | Arg | Gln | Leu | Glu | Val | Leu | Gln | Ser | Ile | Asn | Pro | His |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Asp | Gly | Arg | Asp | Ile | Asn | Gly | Arg | Met | Arg | Ala | Ile | Leu | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Trp | Leu | Val | Gln | Val | His | Ser | Lys | Phe | Xaa | Leu | Leu | Gln | Glu | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Met | Cys | Val | Gly | Ile | Met | Asp | Arg | Phe | Leu | Gln | Val | Gln | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Arg | Lys | Lys | Leu | Gln | Leu | Val | Gly | Ile | Thr | Ala | Leu | Leu | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Lys | Tyr | Glu | Glu | Met | Phe | Ser | Pro | Asn | Ile | Glu | Asp | Phe | Val |
| | | | | 245 | | | | 250 | | | | 255 | | | |
| Tyr | Ile | Thr | Asp | Asn | Ala | Tyr | Thr | Ser | Ser | Gln | Ile | Arg | Glu | Met | Glu |
| | | | | 260 | | | | 265 | | | | 270 | | | |
| Thr | Leu | Ile | Leu | Lys | Glu | Leu | Lys | Phe | Glu | Leu | Gly | Arg | Pro | Leu | Pro |
| | | | | 275 | | | | 280 | | | | 285 | | | |
| Leu | His | Phe | Leu | Arg | Arg | Ala | Ser | Lys | Ala | Gly | Glu | Val | Asp | Val | Glu |
| | | | | 290 | | | | 295 | | | | 300 | | | |
| Gln | His | Thr | Leu | Ala | Lys | Tyr | Leu | Met | Glu | Leu | Thr | Leu | Ile | Asp | Tyr |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Asp | Met | Val | His | Tyr | His | Pro | Ser | Lys | Val | Ala | Ala | Ala | Ala | Ser | Cys |
| | | | | 325 | | | | 330 | | | | 335 | | | |
| Leu | Ser | Gln | Lys | Val | Leu | Gly | Gln | Gly | Lys | Trp | Asn | Leu | Lys | Gln | Gln |
| | | | | 340 | | | | 345 | | | | 350 | | | |
| Tyr | Tyr | Thr | Gly | Tyr | Thr | Glu | Asn | Glu | Val | Leu | Glu | Val | Met | Gln | His |
| | | | | 355 | | | | 360 | | | | 365 | | | |
| Met | Ala | Lys | Asn | Val | Val | Lys | Val | Asn | Glu | Asn | Leu | Thr | Lys | Phe | Ile |
| | | | | 370 | | | | 375 | | | | 380 | | | |
| Ala | Ile | Lys | Asn | Lys | Tyr | Ala | Ser | Ser | Lys | Leu | Leu | Lys | Ile | Ser | Met |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Ile | Pro | Gln | Leu | Asn | Ser | Lys | Ala | Val | Lys | Asp | Leu | Ala | Ser | Pro | Leu |
| | | | | 405 | | | | 410 | | | | 415 | | | |
| Ile | Gly | Arg | Ser | | | | | | | | | | | | |
| 420 | | | | | | | | | | | | | | | |

Gln Ser Asn Ala Val Trp Leu Leu Gly His Leu His Leu Ser Thr Leu

1157

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Ser Ser Ser Gln Ser Arg Ala Ser Val Pro Thr Asp Tyr Ser Tyr Leu | 20 | 25 | 30 |
| Pro Glu Ser Ser Phe Ile Gly Ala Ala Ile Gly Phe Phe Ile Thr Gly | 35 | 40 | 45 |
| Gly Lys Lys Gly Pro Glu Ser Val Pro Pro Ser Leu Leu Lys Val Val | 50 | 55 | 60 |
| Met Lys Pro Ile Ala Thr Val Gly Glu Ser Tyr Gln Tyr Pro Pro Val | 65 | 70 | 75 |
| Asn Trp Ala Ala Leu Leu Ser Pro Leu Met Arg Leu Asn Phe Gly Glu | 85 | 90 | 95 |
| Glu Ile Gln Gln Leu Cys Leu Glu Ile Met Val Thr Gln Ala Gln Ser | 100 | 105 | 110 |
| Ser Gln Asn Ala Ala Ala Leu Leu Gly Leu Trp Val Thr Pro Pro Leu | 115 | 120 | 125 |
| Ile His Ser Leu Ser Leu Asn Thr Lys Arg Tyr Leu Leu Ile Ser Ala | 130 | 135 | 140 |
| Pro Leu Trp Ile Lys His Ile Ser Asp Glu Gln Ile Leu Gly Phe Val | 145 | 150 | 155 |
| Glu Asn Leu Met Val Ala Val Phe Lys Ala Ala Ser Pro Leu Gly Ser | 165 | 170 | 175 |
| Pro Glu Leu Cys Pro Ser Ala Leu His Gly Leu Ser Gln Ala Met Lys | 180 | 185 | 190 |
| Leu Pro Ser Pro Ala His His Leu Trp Ser Leu Leu Ser Glu Ala Thr | 195 | 200 | 205 |
| Gly Lys Ile Phe Asp Leu Leu Pro Asn Lys Ile Arg Arg Lys Asp Leu | 210 | 215 | 220 |
| Glu Leu Tyr Ile Ser Ile Ala Lys Cys Leu Leu Glu Met Thr Asp Asp | 225 | 230 | 235 |
| Asp Ala Asn Xaa Asp Arg Pro Gly Tyr | 245 | | |

<210> 1149

<211> 239

1158

<212> PRT

<213> Homo sapiens

<400> 1149

```

Arg Asp Pro Pro Arg Pro Val Gln Ser Gly Leu Gly Ala Ala Gly Thr
 1              5              10              15

Leu Ser Trp Leu Pro Pro Pro Glu Gln Pro Val Leu Val Pro Arg Leu
      20              25              30

Pro Ala Pro Arg Pro Val Met Thr Leu Arg Pro Ser Leu Leu Pro Leu
      35              40              45

His Leu Leu Leu Leu Leu Leu Leu Ser Ala Ala Val Cys Arg Ala Glu
 50              55              60

Ala Gly Leu Glu Thr Glu Ser Pro Val Arg Thr Leu Gln Val Glu Thr
 65              70              75              80

Leu Val Glu Pro Pro Glu Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp
      85              90              95

Thr Leu His Ile His Tyr Thr Gly Ser Leu Val Asp Gly Arg Ile Ile
      100              105              110

Asp Thr Ser Leu Thr Arg Asp Pro Leu Val Ile Glu Leu Gly Gln Lys
      115              120              125

Gln Val Ile Pro Gly Leu Glu Gln Ser Leu Leu Asp Met Cys Val Gly
      130              135              140

Glu Lys Arg Arg Ala Ile Ile Pro Ser His Leu Ala Tyr Gly Lys Arg
      145              150              155              160

Gly Phe Pro Pro Ser Val Pro Ala Asp Ala Val Val Gln Tyr Asp Val
      165              170              175

Glu Leu Ile Ala Leu Ile Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys
      180              185              190

Gly Ile Leu Pro Leu Val Gly Met Ala Met Val Pro Ala Leu Leu Gly
      195              200              205

Leu Ile Gly Tyr His Leu Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser
      210              215              220

Lys Lys Lys Leu Lys Glu Glu Lys Arg Asn Lys Ser Lys Lys Lys
      225              230              235

```

1159

<210> 1150

<211> 394

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1150

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Xaa | Gly | Lys | Thr | Glu | Trp | Leu | Phe | Gly | Met | Asp | Glu | Gly | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Leu | Ala | Ala | Ser | Ala | Gly | Phe | Arg | Arg | Leu | Ile | Thr | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Arg | Gly | Gln | Gln | Tyr | Glu | Ser | Met | Asp | His | Ile | Gln | Ala | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Ala | Arg | Val | Met | Glu | Leu | Ala | Pro | Ala | Gly | Met | Pro | Thr | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Val | Pro | Phe | Leu | Ser | Val | Gly | Gly | Asp | Ile | Gly | Val | Arg | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gln | His | Gln | Asp | Cys | Ser | Pro | Leu | Ser | Gly | Asp | Tyr | Val | Ile | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Gln | Gly | Asp | Asp | Lys | Arg | Tyr | Phe | Arg | Arg | Leu | Ile | Phe | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Arg | Asn | Val | Val | Gln | Ser | Glu | Ala | Arg | Leu | Leu | Lys | Asp | Val |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | Lys | Ala | Gln | Lys | Lys | Arg | Lys | Lys | Asp | Arg | Lys | Lys | Gln | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Asp | Ala | Glu | Asp | Leu | Pro | Ala | Ala | Pro | Gly | Gln | Ser | Ile | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Tyr | Leu | Cys | Cys | Glu | His | His | Lys | Ala | Met | Ile | Ala | Gly | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Leu | Arg | Asn | Pro | Glu | Leu | Leu | Leu | Glu | Ile | Pro | Leu | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Val | Gly | Leu | Gly | Gly | Gly | Ser | Leu | Pro | Leu | Phe | Val | His | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Pro | Lys | Ser | Cys | Ile | Asp | Ala | Val | Glu | Ile | Asp | Pro | Ser | Met |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1160

| | | |
|---|-----|---------|
| 210 | 215 | 220 |
| Leu Glu Val Ala Thr Gln Trp Phe Gly Phe Ser Gln Ser Asp Arg Met | | |
| 225 | 230 | 235 240 |
| Lys Val His Ile Ala Asp Gly Leu Asp Tyr Ile Ala Ser Leu Ala Gly | | |
| | 245 | 250 255 |
| Gly Gly Glu Ala Arg Pro Cys Tyr Asp Val Ile Met Phe Asp Val Asp | | |
| | 260 | 265 270 |
| Ser Lys Asp Pro Thr Leu Gly Met Ser Cys Pro Pro Pro Ala Phe Val | | |
| | 275 | 280 285 |
| Glu Gln Ser Phe Leu Gln Lys Val Lys Ser Ile Leu Thr Pro Glu Gly | | |
| | 290 | 295 300 |
| Val Phe Ile Leu Asn Leu Val Cys Arg Asp Leu Gly Leu Lys Asp Ser | | |
| 305 | 310 | 315 320 |
| Val Leu Ala Gly Leu Lys Ala Val Phe Pro Leu Leu Tyr Val Arg Arg | | |
| | 325 | 330 335 |
| Ile Glu Gly Glu Val Asn Glu Ile Leu Phe Cys Gln Leu His Pro Glu | | |
| | 340 | 345 350 |
| Gln Lys Leu Ala Thr Pro Glu Leu Leu Glu Thr Ala Gln Ala Leu Glu | | |
| | 355 | 360 365 |
| Arg Thr Leu Arg Lys Pro Gly Arg Gly Trp Asp Asp Thr Tyr Val Leu | | |
| | 370 | 375 380 |
| Ser Asp Met Leu Lys Thr Val Lys Ile Val | | |
| 385 | 390 | |

<210> 1151

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1151

| |
|---|
| Val Asn Val Asn Asn Pro Ser Leu Cys His Ser Ser His Leu Val Asp |
| 1 5 10 15 |
| Leu Gly Ser Gly Ser Val Glu Phe Cys Ala Trp Glu Trp Ser Trp Arg |
| 20 25 30 |
| Glu Trp Gly Leu Cys Thr Ala Ala Thr Ser Pro Arg Ser Ser His Leu |
| 35 40 45 |

1161

Pro Ala Pro Arg Pro Gly Cys Met Ala Ala Pro Val Cys Val Gln Arg
 50 55 60

Ser Val Ser His Pro Leu His Leu Leu Ser Gly Gly Leu Gly Ser Pro
 65 70 75 80

Thr Cys Cys Gln Asp Leu Gly Ala Ile Lys Tyr Ser Gly Phe Val Lys
 85 90 95

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 100 105 110

<210> 1152

<211> 172

<212> PRT

<213> Homo sapiens

<400> 1152

Leu Gly Asp Thr Ile Glu Gly Arg Leu Gln Val Pro Val Arg Asn Ser
 1 5 10 15

Arg Val Asp Pro Arg Val Arg Ala Arg Gly Ala Asp Arg Met Gly Lys
 20 25 30

Cys Arg Gly Leu Arg Thr Ala Arg Lys Leu Arg Ser His Arg Arg Asp
 35 40 45

Gln Lys Trp His Asp Lys Gln Tyr Lys Lys Ala His Leu Gly Thr Ala
 50 55 60

Leu Lys Ala Asn Pro Phe Gly Gly Ala Ser His Ala Lys Gly Ile Val
 65 70 75 80

Leu Glu Lys Val Gly Val Glu Ala Lys Gln Pro Asn Ser Ala Ile Arg
 85 90 95

Lys Cys Val Arg Val Gln Leu Ile Lys Asn Gly Lys Lys Ile Thr Ala
 100 105 110

Phe Val Pro Asn Asp Gly Cys Leu Asn Phe Ile Glu Glu Asn Asp Glu
 115 120 125

Val Leu Val Ala Gly Phe Gly Arg Lys Gly His Ala Val Gly Asp Ile
 130 135 140

Pro Gly Val Arg Phe Lys Val Val Lys Val Ala Asn Val Ser Leu Leu
 145 150 155 160

1162

Ala Leu Tyr Lys Gly Lys Lys Glu Arg Pro Arg Ser
 165 170

<210> 1153

<211> 197

<212> PRT

<213> Homo sapiens

<400> 1153

Tyr Trp Cys Glu Gln Cys Asp Val Gln Phe Ser Ser Ser Ser Glu Leu
 1 5 10 15

Tyr Leu His Phe Gln Glu His Ser Cys Asp Glu Gln Tyr Leu Cys Gln
 20 25 30

Phe Cys Glu His Glu Thr Asn Asp Pro Glu Asp Leu His Ser His Val
 35 40 45

Val Asn Glu His Ala Cys Lys Leu Ile Glu Leu Ser Asp Lys Tyr Asn
 50 55 60

Asn Gly Glu His Gly Gln Tyr Ser Leu Leu Ser Lys Ile Thr Phe Asp
 65 70 75 80

Lys Cys Lys Asn Phe Phe Val Cys Gln Val Cys Gly Phe Arg Ser Arg
 85 90 95

Leu His Thr Asn Val Asn Arg His Val Ala Ile Glu His Thr Lys Ile
 100 105 110

Phe Pro His Val Cys Asp Asp Cys Gly Lys Gly Phe Ser Ser Met Leu
 115 120 125

Glu Tyr Cys Lys His Leu Asn Ser His Leu Ser Glu Gly Ile Tyr Leu
 130 135 140

Cys Gln Tyr Cys Glu Tyr Ser Thr Gly Gln Ile Glu Asp Leu Lys Ile
 145 150 155 160

His Leu Asp Phe Lys His Ser Ala Asp Leu Pro His Lys Cys Ser Asp
 165 170 175

Cys Leu Met Arg Phe Gly Asn Glu Arg Glu Leu Ile Ser His Leu Pro
 180 185 190

Val His Glu Thr Thr
 195

1163

<210> 1154

<211> 156

<212> PRT

<213> Homo sapiens

<400> 1154

Pro Ala Lys Glu Arg Arg Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
 1 5 10 15

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Gly
 20 25 30

Ser Ser Ser Ser Asp Ser Glu Gly Ser Ser Leu Pro Val Gln Pro Glu
 35 40 45

Val Ala Leu Lys Arg Val Pro Ser Pro Thr Pro Ala Pro Lys Glu Ala
 50 55 60

Val Arg Glu Gly Arg Pro Pro Glu Pro Thr Pro Ala Lys Arg Lys Arg
 65 70 75 80

Arg Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
 85 90 95

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
 100 105 110

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Pro Ser Pro Ala Lys
 115 120 125

Pro Gly Pro Gln Ala Cys Pro Asn Leu Gln Ala Pro Arg Ser His Pro
 130 135 140

Leu Ala Ser Gly Gly Pro Ala Ala Pro Gly Ser Gln
 145 150 155

<210> 1155

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1164

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1155

Pro Glu Ala Pro Arg Gly Val Val Thr Cys Leu Arg Ala Leu Leu Ser
 1 5 10 15

His Gln His Gln Thr Arg Pro His Arg Val Pro Gly Thr Met Phe Gly
 20 25 30

Lys Arg Lys Lys Arg Val Glu Ile Ser Ala Pro Ser Asn Phe Glu His
 35 40 45

Arg Val His Thr Gly Phe Asp Gln His Glu Gln Lys Phe Thr Gly Leu
 50 55 60

Pro Arg Gln Trp Gln Ser Leu Ile Xaa Glu Ser Ala Arg Arg Pro Lys
 65 70 75 80

Pro Leu Val Asp Pro Ala Cys Ile Thr Ser Ile Gln Pro Gly Ala Pro
 85 90 95

Lys Thr Ile Val Arg Gly Ser Lys Xaa Ala Lys Asp Gly Ala Leu Thr
 100 105 110

Leu Leu Leu Asp Glu Phe Glu Asn Met Xaa Val Thr Arg
 115 120 125

<210> 1156

<211> 202

<212> PRT

<213> Homo sapiens

<400> 1156

Arg Pro Thr Arg Pro Gln Pro Ser Pro Asp Glu Ala Arg Pro Leu Gln
 1 5 10 15

Ala Leu Leu Asp Gly Arg Gly Leu Cys Val Asn Ala Ser Ala Val Ser
 20 25 30

Arg Leu Arg Ala Tyr Leu Leu Pro Ala Pro Pro Ala Pro Gly Asn Ala
 35 40 45

Ser Glu Ser Glu Glu Asp Arg Ser Ala Gly Ser Val Glu Ser Pro Ser

1165

| | | |
|---|-----|---------|
| 50 | 55 | 60 |
| Val Ser Ser Thr His Arg Val Ser Asp Pro Lys Phe His Pro Leu His | | |
| 65 | 70 | 75 80 |
| Ser Lys Ile Ile Ile Ile Lys Lys Gly His Ala Lys Asp Ser Gln Arg | | |
| | 85 | 90 95 |
| Tyr Lys Val Asp Tyr Glu Ser Gln Ser Thr Asp Thr Gln Asn Phe Ser | | |
| | 100 | 105 110 |
| Ser Glu Ser Lys Arg Glu Thr Glu Tyr Gly Pro Cys Arg Arg Glu Met | | |
| | 115 | 120 125 |
| Glu Asp Thr Leu Asn His Leu Lys Phe Leu Asn Val Leu Ser Pro Arg | | |
| | 130 | 135 140 |
| Gly Val His Ile Pro Asn Cys Asp Lys Lys Gly Phe Tyr Lys Lys Lys | | |
| 145 | 150 | 155 160 |
| Gln Cys Arg Pro Ser Lys Gly Arg Lys Arg Gly Phe Cys Trp Cys Val | | |
| | 165 | 170 175 |
| Asp Lys Tyr Gly Gln Pro Leu Pro Gly Tyr Thr Thr Lys Gly Lys Glu | | |
| | 180 | 185 190 |
| Asp Val His Cys Tyr Ser Met Gln Ser Lys | | |
| | 195 | 200 |

<210> 1157

<211> 269

<212> PRT

<213> Homo sapiens

<400> 1157

| | | |
|---|----|-------|
| Arg Arg Cys Cys His Ser Ala Thr Met Phe Glu Ala Arg Leu Val Gln | | |
| 1 | 5 | 10 15 |
| Gly Ser Ile Leu Lys Lys Val Leu Glu Ala Leu Lys Asp Leu Ile Asn | | |
| | 20 | 25 30 |
| Glu Ala Cys Trp Asp Ile Ser Ser Ser Gly Val Asn Leu Gln Ser Met | | |
| | 35 | 40 45 |
| Asp Ser Ser His Val Ser Leu Val Gln Leu Thr Leu Arg Ser Glu Gly | | |
| | 50 | 55 60 |
| Phe Asp Thr Tyr Arg Cys Asp Arg Asn Leu Ala Met Gly Val Asn Leu | | |
| 65 | 70 | 75 80 |

1166

Thr Ser Met Ser Lys Ile Leu Lys Cys Ala Gly Asn Glu Asp Ile Ile
 85 90 95
 Thr Leu Arg Ala Glu Asp Asn Ala Asp Thr Leu Ala Leu Val Phe Glu
 100 105 110
 Ala Pro Asn Gln Glu Lys Val Ser Asp Tyr Glu Met Lys Leu Met Asp
 115 120 125
 Leu Asp Val Glu Gln Leu Gly Ile Pro Glu Gln Glu Tyr Ser Cys Val
 130 135 140
 Val Lys Met Pro Ser Gly Glu Phe Ala Arg Ile Cys Arg Asp Leu Ser
 145 150 155 160
 His Ile Gly Asp Ala Val Val Ile Ser Cys Ala Lys Asp Gly Val Lys
 165 170 175
 Phe Ser Ala Ser Gly Glu Leu Gly Asn Gly Asn Ile Lys Leu Ser Gln
 180 185 190
 Thr Ser Asn Val Asp Lys Glu Glu Glu Ala Val Thr Ile Glu Met Asn
 195 200 205
 Glu Pro Val Gln Leu Thr Phe Ala Leu Arg Tyr Leu Asn Phe Phe Thr
 210 215 220
 Lys Ala Thr Pro Leu Ser Ser Thr Val Thr Leu Ser Met Ser Ala Asp
 225 230 235 240
 Val Pro Leu Val Val Glu Tyr Lys Ile Ala Asp Met Gly His Leu Lys
 245 250 255
 Tyr Tyr Leu Ala Pro Lys Ile Glu Asp Glu Glu Gly Ser
 260 265

<210> 1158

<211> 639

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1167

<222> (150)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1158

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Asp | Glu | Met | Ala | Thr | Thr | Gln | Ile | Ser | Lys | Asp | Glu | Leu | Asp | Glu | 1 | 5 | 10 | 15 |
| Leu | Lys | Glu | Ala | Phe | Ala | Lys | Val | Asp | Leu | Asn | Ser | Asn | Gly | Phe | Ile | 20 | 25 | 30 | |
| Cys | Asp | Tyr | Glu | Leu | His | Glu | Leu | Phe | Lys | Glu | Ala | Asn | Met | Pro | Leu | 35 | 40 | 45 | |
| Pro | Gly | Tyr | Lys | Val | Arg | Glu | Ile | Ile | Gln | Lys | Leu | Met | Leu | Asp | Gly | 50 | 55 | 60 | |
| Asp | Arg | Asn | Lys | Asp | Gly | Lys | Ile | Ser | Phe | Asp | Glu | Phe | Val | Tyr | Ile | 65 | 70 | 75 | 80 |
| Phe | Gln | Glu | Val | Lys | Ser | Ser | Asp | Ile | Ala | Lys | Thr | Phe | Arg | Lys | Ala | 85 | 90 | 95 | |
| Ile | Asn | Arg | Lys | Glu | Gly | Ile | Cys | Ala | Leu | Gly | Gly | Thr | Ser | Glu | Leu | 100 | 105 | 110 | |
| Ser | Ser | Glu | Gly | Thr | Gln | His | Ser | Tyr | Ser | Glu | Glu | Glu | Lys | Tyr | Ala | 115 | 120 | 125 | |
| Xaa | Val | Asn | Trp | Ile | Asn | Lys | Ala | Leu | Glu | Asn | Asp | Pro | Asp | Cys | Arg | 130 | 135 | 140 | |
| His | Val | Ile | Pro | Met | Xaa | Pro | Asn | Thr | Asp | Asp | Leu | Phe | Lys | Ala | Val | 145 | 150 | 155 | 160 |
| Gly | Asp | Gly | Ile | Val | Leu | Cys | Lys | Met | Ile | Asn | Leu | Ser | Val | Pro | Asp | 165 | 170 | 175 | |
| Thr | Ile | Asp | Glu | Arg | Ala | Ile | Asn | Lys | Lys | Lys | Leu | Thr | Pro | Phe | Ile | 180 | 185 | 190 | |
| Ile | Gln | Glu | Asn | Leu | Asn | Leu | Ala | Leu | Asn | Ser | Ala | Ser | Ala | Ile | Gly | 195 | 200 | 205 | |
| Cys | His | Val | Val | Asn | Ile | Gly | Ala | Glu | Asp | Leu | Arg | Ala | Gly | Lys | Pro | 210 | 215 | 220 | |
| His | Leu | Val | Leu | Gly | Leu | Leu | Trp | Gln | Ile | Ile | Lys | Ile | Gly | Leu | Phe | 225 | 230 | 235 | 240 |
| Ala | Asp | Ile | Glu | Leu | Ser | Arg | Asn | Glu | Ala | Leu | Ala | Ala | Leu | Leu | Arg | 245 | 250 | 255 | |

1168

Asp Gly Glu Thr Leu Glu Glu Leu Met Lys Leu Ser Pro Glu Glu Leu
 260 265 270

Leu Leu Arg Trp Ala Asn Phe His Leu Glu Asn Ser Gly Trp Gln Lys
 275 280 285

Ile Asn Asn Phe Ser Ala Asp Ile Lys Leu Ile Asp Phe Ser Asn Ser
 290 295 300

Val Lys Asp Ser Lys Ala Tyr Phe His Leu Leu Asn Gln Ile Ala Pro
 305 310 315 320

Lys Gly Gln Lys Glu Gly Glu Pro Arg Ile Asp Ile Asn Met Ser Gly
 325 330 335

Phe Asn Glu Thr Asp Asp Leu Lys Arg Ala Glu Ser Met Leu Gln Gln
 340 345 350

Ala Asp Lys Leu Gly Cys Arg Gln Phe Val Thr Pro Ala Asp Val Val
 355 360 365

Ser Gly Asn Pro Lys Leu Asn Leu Ala Phe Val Ala Asn Leu Phe Asn
 370 375 380

Lys Tyr Pro Ala Leu Thr Lys Pro Glu Asn Gln Asp Ile Asp Trp Thr
 385 390 395 400

Leu Leu Glu Gly Glu Thr Arg Glu Glu Arg Thr Phe Arg Asn Trp Met
 405 410 415

Asn Ser Leu Gly Val Asn Pro His Val Asn His Leu Tyr Ala Asp Leu
 420 425 430

Gln Asp Ala Leu Val Ile Leu Gln Leu Tyr Glu Arg Ile Lys Val Pro
 435 440 445

Val Asp Trp Ser Lys Val Asn Lys Pro Pro Tyr Pro Lys Leu Gly Ala
 450 455 460

Asn Met Lys Lys Leu Glu Asn Cys Asn Tyr Ala Val Glu Leu Gly Lys
 465 470 475 480

His Pro Ala Lys Phe Ser Leu Val Gly Ile Gly Gly Gln Asp Leu Asn
 485 490 495

Asp Gly Asn Gln Thr Leu Thr Leu Ala Leu Val Trp Gln Leu Met Arg
 500 505 510

Arg Tyr Thr Leu Asn Val Leu Glu Asp Leu Gly Asp Gly Gln Lys Ala
 515 520 525

1169

Asn Asp Asp Ile Ile Val Asn Trp Val Asn Arg Thr Leu Ser Glu Ala
 530 535 540
 Gly Lys Ser Thr Ser Ile Gln Ser Phe Lys Asp Lys Thr Ile Ser Ser
 545 550 555 560
 Ser Leu Ala Val Val Asp Leu Ile Asp Ala Ile Gln Pro Gly Cys Ile
 565 570 575
 Asn Tyr Asp Leu Val Lys Ser Gly Asn Leu Thr Glu Asp Asp Lys His
 580 585 590
 Asn Asn Ala Lys Tyr Ala Val Ser Met Ala Arg Arg Ile Gly Ala Arg
 595 600 605
 Val Tyr Ala Leu Pro Glu Asp Leu Val Glu Val Lys Pro Lys Met Val
 610 615 620
 Met Thr Val Phe Ala Cys Leu Met Gly Arg Gly Met Lys Arg Val
 625 630 635

<210> 1159
 <211> 63
 <212> PRT
 <213> Homo sapiens

<400> 1159
 Thr Ile Trp Pro Leu Asn Phe His Arg Lys Asn Asp Pro Thr Phe Leu
 1 5 10 15
 Ser Met Ser Tyr Leu Ile Ser Arg Ser Trp Asp Gly Leu Thr Ile Leu
 20 25 30
 Val Tyr Ile Leu Asp Thr Glu Arg Cys Tyr Ala Ser Val Ile Ile Pro
 35 40 45
 Arg Leu Glu Ile Gly Arg Ala Lys Lys Val Leu Leu Phe Phe Leu
 50 55 60

<210> 1160
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 1160
 Glu Val Tyr Gly Gly Ser Leu Asp Lys Glu Phe Asp Glu Ser Ser Pro

1170

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Lys Gln Pro Thr Asn Pro Tyr Ala Ser Ser Lys Ala Ala Ala Glu Cys | 20 | 25 | 30 |
| Phe Val Gln Ser Tyr Trp Glu Gln Tyr Lys Phe Pro Val Val Ile Thr | 35 | 40 | 45 |
| Arg Ser Ser Asn Val Tyr Gly Pro His Gln Tyr Pro Glu Lys Val Ile | 50 | 55 | 60 |
| Pro Lys Phe Ile Ser Leu Leu Gln His Asn Arg Lys Cys Cys Ile His | 65 | 70 | 75 |
| Gly Ser Gly Leu Gln Thr Arg Asn Phe Leu Tyr Ala Thr Asp Val Val | 85 | 90 | 95 |
| Glu Ala Phe Leu Thr Val Leu Lys Lys Gly Lys Pro Gly Glu Ile Tyr | 100 | 105 | 110 |
| Asn Ile Gly Thr Asn Phe Glu Met Ser Val Val Gln Leu Ala Lys Glu | 115 | 120 | 125 |
| Leu Ile Gln Leu Ile Lys Glu Thr Asn Ser Glu Ser Glu Met Glu Asn | 130 | 135 | 140 |
| Trp Val Asp Tyr Val Asn Asp Arg Pro Thr Asn Asp Met Arg Tyr Pro | 145 | 150 | 155 |
| Met Lys Ser Glu Lys Ile His Gly Leu Gly Trp Arg Pro Lys Val Pro | 165 | 170 | 175 |
| Trp Lys Glu Gly Ile Lys Lys Thr Ile Glu Trp Tyr Arg Glu Asn Phe | 180 | 185 | 190 |
| His Asn Trp Lys Asn Val Glu Lys Ala Leu Glu Pro Phe Pro Val | 195 | 200 | 205 |

<210> 1161

<211> 848

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (815)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1171

<221> SITE

<222> (844)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1161

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Gly | Leu | Gly | Val | Thr | Met | Ala | Thr | Glu | Glu | Phe | Ile | Ile | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Pro | Pro | Tyr | His | Tyr | Ile | His | Val | Leu | Asp | Gln | Asn | Ser | Asn | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Arg | Val | Glu | Val | Gly | Pro | Lys | Thr | Tyr | Ile | Arg | Gln | Asp | Asn | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Val | Leu | Phe | Ala | Pro | Met | Arg | Met | Val | Thr | Val | Pro | Pro | Arg | His |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Tyr | Cys | Thr | Val | Ala | Asn | Pro | Val | Ser | Arg | Asp | Ala | Gln | Gly | Leu | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Phe | Asp | Val | Thr | Gly | Gln | Val | Arg | Leu | Arg | His | Ala | Asp | Leu | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Arg | Leu | Ala | Gln | Asp | Pro | Phe | Pro | Leu | Tyr | Pro | Gly | Glu | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Lys | Asp | Ile | Thr | Pro | Leu | Gln | Val | Val | Leu | Pro | Asn | Thr | Ala | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Leu | Lys | Ala | Leu | Leu | Asp | Phe | Glu | Asp | Lys | Asp | Gly | Asp | Lys | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Ala | Gly | Asp | Glu | Trp | Leu | Phe | Glu | Gly | Pro | Gly | Thr | Tyr | Ile | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Lys | Glu | Val | Glu | Val | Val | Glu | Ile | Ile | Gln | Ala | Thr | Ile | Ile | Arg |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Gln | Asn | Gln | Ala | Leu | Arg | Leu | Arg | Ala | Arg | Lys | Glu | Cys | Trp | Asp | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Gly | Lys | Glu | Arg | Val | Thr | Gly | Glu | Glu | Trp | Leu | Val | Thr | Thr | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Ala | Tyr | Leu | Pro | Ala | Val | Phe | Glu | Glu | Val | Leu | Asp | Leu | Val | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Val | Ile | Leu | Thr | Glu | Lys | Thr | Ala | Leu | His | Leu | Arg | Ala | Arg | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Phe | Arg | Asp | Phe | Arg | Gly | Val | Ser | Arg | Arg | Thr | Gly | Glu | Glu | Trp |

1172

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|-----|--|--|--|--|
| 245 | | | | | | | | | | | | | | | 250 | | | | | 255 | | | | |
| Leu | Val | Thr | Val | Gln | Asp | Thr | Glu | Ala | His | Val | Pro | Asp | Val | His | Glu | | | | | | | | | |
| | | | 260 | | | | | | 265 | | | 270 | | | | | | | | | | | | |
| Glu | Val | Leu | Gly | Val | Val | Pro | Ile | Thr | Thr | Leu | Gly | Pro | His | Asn | Tyr | | | | | | | | | |
| | | | 275 | | | | | | 280 | | | 285 | | | | | | | | | | | | |
| Cys | Val | Ile | Leu | Asp | Pro | Val | Gly | Pro | Asp | Gly | Lys | Asn | Gln | Leu | Gly | | | | | | | | | |
| | | | 290 | | | | | | 295 | | | 300 | | | | | | | | | | | | |
| Gln | Lys | Arg | Val | Val | Lys | Gly | Glu | Lys | Ser | Phe | Phe | Leu | Gln | Pro | Gly | | | | | | | | | |
| 305 | | | | | | 310 | | | 315 | | | | | | 320 | | | | | | | | | |
| Glu | Gln | Leu | Glu | Gln | Gly | Ile | Gln | Asp | Val | Tyr | Val | Leu | Ser | Glu | Gln | | | | | | | | | |
| | | | 325 | | | | | | 330 | | | 335 | | | | | | | | | | | | |
| Gln | Gly | Leu | Leu | Leu | Arg | Ala | Leu | Gln | Pro | Leu | Glu | Glu | Gly | Glu | Asp | | | | | | | | | |
| | | | 340 | | | | | | 345 | | | 350 | | | | | | | | | | | | |
| Glu | Glu | Lys | Val | Ser | His | Gln | Ala | Gly | Asp | His | Trp | Leu | Ile | Arg | Gly | | | | | | | | | |
| | | | 355 | | | | | | 360 | | | 365 | | | | | | | | | | | | |
| Pro | Leu | Glu | Tyr | Val | Pro | Ser | Ala | Lys | Val | Glu | Val | Val | Glu | Glu | Arg | | | | | | | | | |
| | | | 370 | | | 375 | | | 380 | | | | | | | | | | | | | | | |
| Gln | Ala | Ile | Pro | Leu | Asp | Glu | Asn | Glu | Gly | Ile | Tyr | Val | Gln | Asp | Val | | | | | | | | | |
| 385 | | | | | | 390 | | | 395 | | | 400 | | | | | | | | | | | | |
| Lys | Thr | Gly | Lys | Val | Arg | Ala | Val | Ile | Gly | Ser | Thr | Tyr | Met | Leu | Thr | | | | | | | | | |
| | | | 405 | | | | | | 410 | | | 415 | | | | | | | | | | | | |
| Gln | Asp | Glu | Val | Leu | Trp | Glu | Lys | Glu | Leu | Pro | Pro | Gly | Val | Glu | Glu | | | | | | | | | |
| | | | 420 | | | | | | 425 | | | 430 | | | | | | | | | | | | |
| Leu | Leu | Asn | Lys | Gly | Gln | Asp | Pro | Leu | Ala | Asp | Arg | Gly | Glu | Lys | Asp | | | | | | | | | |
| | | | 435 | | | 440 | | | 445 | | | | | | | | | | | | | | | |
| Thr | Ala | Lys | Ser | Leu | Gln | Pro | Leu | Ala | Pro | Arg | Asn | Lys | Thr | Arg | Val | | | | | | | | | |
| | | | 450 | | | 455 | | | 460 | | | | | | | | | | | | | | | |
| Val | Ser | Tyr | Arg | Val | Pro | His | Asn | Ala | Ala | Val | Gln | Val | Tyr | Asp | Tyr | | | | | | | | | |
| 465 | | | | | | 470 | | | 475 | | | 480 | | | | | | | | | | | | |
| Arg | Glu | Lys | Arg | Ala | Arg | Val | Val | Phe | Gly | Pro | Glu | Leu | Val | Ser | Leu | | | | | | | | | |
| | | | 485 | | | | | | 490 | | | 495 | | | | | | | | | | | | |
| Gly | Pro | Glu | Glu | Gln | Phe | Thr | Val | Leu | Ser | Leu | Ser | Ala | Gly | Arg | Pro | | | | | | | | | |
| | | | 500 | | | | | | 505 | | | 510 | | | | | | | | | | | | |
| Lys | Arg | Pro | His | Ala | Arg | Arg | Ala | Leu | Cys | Leu | Leu | Leu | Gly | Pro | Asp | | | | | | | | | |

1173

| | | |
|---|-----|-------------|
| 515 | 520 | 525 |
| Phe Phe Thr Asp Val Ile Thr Ile Glu Thr Ala Asp His Ala Arg Leu | | |
| 530 | 535 | 540 |
| Gln Leu Gln Leu Ala Tyr Asn Trp His Phe Glu Val Asn Asp Arg Lys | | |
| 545 | 550 | 555 560 |
| Asp Pro Gln Glu Thr Ala Lys Leu Phe Ser Val Pro Asp Phe Val Gly | | |
| | 565 | 570 575 |
| Asp Ala Cys Lys Ala Ile Ala Ser Arg Val Arg Gly Ala Val Ala Ser | | |
| | 580 | 585 590 |
| Val Thr Phe Asp Asp Phe His Lys Asn Ser Ala Arg Ile Ile Arg Thr | | |
| | 595 | 600 605 |
| Ala Val Phe Gly Phe Glu Thr Ser Glu Ala Lys Gly Pro Asp Gly Met | | |
| | 610 | 615 620 |
| Ala Leu Pro Arg Pro Arg Asp Gln Ala Val Phe Pro Gln Asn Gly Leu | | |
| | 625 | 630 635 640 |
| Val Val Ser Ser Val Asp Val Gln Ser Val Glu Pro Val Asp Gln Arg | | |
| | 645 | 650 655 |
| Thr Arg Asp Ala Leu Gln Arg Ser Val Gln Leu Ala Ile Glu Ile Thr | | |
| | 660 | 665 670 |
| Thr Asn Ser Gln Glu Ala Ala Ala Lys His Glu Ala Gln Arg Leu Glu | | |
| | 675 | 680 685 |
| Gln Glu Ala Arg Gly Arg Leu Glu Arg Gln Lys Ile Leu Asp Gln Ser | | |
| | 690 | 695 700 |
| Glu Ala Glu Lys Ala Arg Lys Glu Leu Leu Glu Leu Glu Ala Leu Ser | | |
| | 705 | 710 715 720 |
| Met Ala Val Glu Ser Thr Gly Thr Ala Lys Ala Glu Ala Glu Ser Arg | | |
| | 725 | 730 735 |
| Ala Glu Ala Ala Arg Ile Glu Gly Glu Gly Ser Val Leu Gln Ala Lys | | |
| | 740 | 745 750 |
| Leu Lys Ala Gln Ala Leu Ala Ile Glu Thr Glu Ala Glu Leu Gln Arg | | |
| | 755 | 760 765 |
| Val Gln Lys Val Arg Glu Leu Glu Leu Val Tyr Ala Arg Ala Gln Leu | | |
| | 770 | 775 780 |
| Glu Leu Glu Val Ser Lys Ala Gln Gln Leu Ala Glu Val Glu Val Lys | | |

1174

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 785 | | 790 | | 795 | | 800 | | | | | | | | | |
| Lys | Phe | Lys | Gln | Met | Thr | Glu | Ala | Ile | Gly | Pro | Ser | Thr | Ile | Xaa | Asp |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Leu | Ala | Val | Ala | Gly | Pro | Glu | Met | Gln | Val | Lys | Leu | Leu | Gln | Ser | Leu |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Gly | Leu | Lys | Ser | Thr | Leu | Ile | Thr | Asp | Gly | Phe | Xaa | Ser | Ile | Asn | Phe |
| | | 835 | | | | | 840 | | | | | 845 | | | |

<210> 1162

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1162

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Xaa | Val | Gly | Ile | Val | Asn | Phe | Ser | Gln | Pro | Pro | His | Ala | Ala | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Cys | Gly | Cys | Ser | Ser | Ser | Glu | Met | Leu | Thr | Xaa | Lys | Arg | Glu | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Ser | Arg | Tyr | Val | Gln | Pro | Cys | Leu | Gln | Asn | Pro | Ser | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Ile | Arg | Ser | Phe | Leu | Val | Phe | Tyr |
| | 50 | | | | | 55 | | | |

<210> 1163

<211> 565

<212> PRT

<213> Homo sapiens

1175

<400> 1163

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Ile Pro Gly Ser Thr His Ala Ser Ala Gly Asn Leu Asp Ser Pro Glu
 1             5             10             15

Gly Gly Phe Asp Ala Ile Met Gln Val Ala Val Cys Gly Ser Leu Ile
      20             25             30

Gly Trp Arg Asn Val Thr Arg Leu Leu Val Phe Ser Thr Asp Ala Gly
      35             40             45

Phe His Phe Ala Gly Asp Gly Lys Leu Gly Gly Ile Val Leu Pro Asn
 50             55             60

Asp Gly Gln Cys His Leu Glu Asn Asn Met Tyr Thr Met Ser His Tyr
 65             70             75             80

Tyr Asp Tyr Pro Ser Ile Ala His Leu Val Gln Lys Leu Ser Glu Asn
      85             90             95

Asn Ile Gln Thr Ile Phe Ala Val Thr Glu Glu Phe Gln Pro Val Tyr
      100            105            110

Lys Glu Leu Lys Asn Leu Ile Pro Lys Ser Ala Val Gly Thr Leu Ser
      115            120            125

Ala Asn Ser Ser Asn Val Ile Gln Leu Ile Ile Asp Ala Tyr Asn Ser
      130            135            140

Leu Ser Ser Glu Val Ile Leu Glu Asn Gly Lys Leu Ser Glu Gly Val
      145            150            155            160

Thr Ile Ser Tyr Lys Ser Tyr Cys Lys Asn Gly Val Asn Gly Thr Gly
      165            170            175

Glu Asn Gly Arg Lys Cys Ser Asn Ile Ser Ile Gly Asp Glu Val Gln
      180            185            190

Phe Glu Ile Ser Ile Thr Ser Asn Lys Cys Pro Lys Lys Asp Ser Asp
      195            200            205

Ser Phe Lys Ile Arg Pro Leu Gly Phe Thr Glu Glu Val Glu Val Ile
      210            215            220

Leu Gln Tyr Ile Cys Glu Cys Glu Cys Gln Ser Glu Gly Ile Pro Glu
      225            230            235            240

Ser Pro Lys Cys His Glu Gly Asn Gly Thr Phe Glu Cys Gly Ala Cys
      245            250            255

Arg Cys Asn Glu Gly Arg Val Gly Arg His Cys Glu Cys Ser Thr Asp
      260            265            270

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1176

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Val | Asn | Ser | Glu | Asp | Met | Asp | Ala | Tyr | Cys | Arg | Lys | Glu | Asn | Ser | 275 | 280 | 285 | |
| Ser | Glu | Ile | Cys | Ser | Asn | Asn | Gly | Glu | Cys | Val | Cys | Gly | Gln | Cys | Val | 290 | 295 | 300 | |
| Cys | Arg | Lys | Arg | Asp | Asn | Thr | Asn | Glu | Ile | Tyr | Ser | Gly | Lys | Phe | Cys | 305 | 310 | 315 | 320 |
| Glu | Cys | Asp | Asn | Phe | Asn | Cys | Asp | Arg | Ser | Asn | Gly | Leu | Ile | Cys | Gly | 325 | 330 | 335 | |
| Gly | Asn | Gly | Val | Cys | Lys | Cys | Arg | Val | Cys | Glu | Cys | Asn | Pro | Asn | Tyr | 340 | 345 | 350 | |
| Thr | Gly | Ser | Ala | Cys | Asp | Cys | Ser | Leu | Asp | Thr | Ser | Thr | Cys | Glu | Ala | 355 | 360 | 365 | |
| Ser | Asn | Gly | Gln | Ile | Cys | Asn | Gly | Arg | Gly | Ile | Cys | Glu | Cys | Gly | Val | 370 | 375 | 380 | |
| Cys | Lys | Cys | Thr | Asp | Pro | Lys | Phe | Gln | Gly | Gln | Thr | Cys | Glu | Met | Cys | 385 | 390 | 395 | 400 |
| Gln | Thr | Cys | Leu | Gly | Val | Cys | Ala | Glu | His | Lys | Glu | Cys | Val | Gln | Cys | 405 | 410 | 415 | |
| Arg | Ala | Phe | Asn | Lys | Gly | Glu | Lys | Lys | Asp | Thr | Cys | Thr | Gln | Glu | Cys | 420 | 425 | 430 | |
| Ser | Tyr | Phe | Asn | Ile | Thr | Lys | Val | Glu | Ser | Arg | Asp | Lys | Leu | Pro | Gln | 435 | 440 | 445 | |
| Pro | Val | Gln | Pro | Asp | Pro | Val | Ser | His | Cys | Lys | Glu | Lys | Asp | Val | Asp | 450 | 455 | 460 | |
| Asp | Cys | Trp | Phe | Tyr | Phe | Thr | Tyr | Ser | Val | Asn | Gly | Asn | Asn | Glu | Val | 465 | 470 | 475 | 480 |
| Met | Val | His | Val | Val | Glu | Asn | Pro | Glu | Cys | Pro | Thr | Gly | Pro | Asp | Ile | 485 | 490 | 495 | |
| Ile | Pro | Ile | Val | Ala | Gly | Val | Val | Ala | Gly | Ile | Val | Leu | Ile | Gly | Leu | 500 | 505 | 510 | |
| Ala | Leu | Leu | Leu | Ile | Trp | Lys | Leu | Leu | Met | Ile | Ile | His | Asp | Arg | Arg | 515 | 520 | 525 | |
| Glu | Phe | Ala | Lys | Phe | Glu | Lys | Glu | Lys | Met | Asn | Ala | Lys | Trp | Asp | Thr | 530 | 535 | 540 | |

1177

Gly Glu Asn Pro Ile Tyr Lys Ser Ala Val Thr Thr Val Val Asn Pro
 545 550 555 560

Lys Tyr Glu Gly Lys
 565

<210> 1164

<211> 138

<212> PRT

<213> Homo sapiens

<400> 1164

Gly Thr Ala Gly Gly Ala Gly Gly Gln Arg Glu Val Arg Gly Cys Ser
 1 5 10 15

Ala Gln Glu Thr Met Ser Gly Gly Ser Ser Cys Ser Gln Thr Pro Ser
 20 25 30

Arg Ala Ile Pro Ala Thr Arg Arg Val Val Leu Gly Asp Gly Val Gln
 35 40 45

Leu Pro Pro Gly Asp Tyr Ser Thr Thr Pro Gly Gly Thr Leu Phe Ser
 50 55 60

Thr Thr Pro Gly Gly Thr Arg Ile Ile Tyr Asp Arg Lys Phe Leu Met
 65 70 75 80

Glu Cys Arg Asn Ser Pro Val Thr Lys Thr Pro Pro Arg Asp Leu Pro
 85 90 95

Thr Ile Pro Gly Val Thr Ser Pro Ser Ser Asp Glu Pro Pro Met Glu
 100 105 110

Ala Ser Gln Ser His Leu Arg Asn Ser Pro Glu Asp Lys Arg Ala Gly
 115 120 125

Gly Glu Glu Ser Gln Phe Glu Met Asp Ile
 130 135

<210> 1165

<211> 407

<212> PRT

<213> Homo sapiens

<400> 1165

Ala Ala Cys Gln Pro Arg Cys Cys Cys Ser Ser Cys Cys Gly Thr Ala

1178

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Asp Arg Ala Ala Ala Pro Leu Ser Pro Leu Gln Ala Pro Ile Trp Ala | 20 | 25 | 30 |
| Pro Ala Thr Ser Met Asp Ala Arg Arg Val Pro Gln Lys Asp Leu Arg | 35 | 40 | 45 |
| Val Lys Lys Asn Leu Lys Lys Phe Arg Tyr Val Lys Leu Ile Ser Met | 50 | 55 | 60 |
| Glu Thr Ser Ser Ser Ser Asp Asp Ser Cys Asp Ser Phe Ala Ser Asp | 65 | 70 | 75 |
| Asn Phe Ala Asn Thr Arg Leu Gln Ser Val Arg Glu Gly Cys Arg Thr | 85 | 90 | 95 |
| Arg Ser Gln Cys Arg His Ser Gly Pro Leu Arg Val Ala Met Lys Phe | 100 | 105 | 110 |
| Pro Ala Arg Ser Thr Arg Gly Ala Thr Asn Lys Lys Ala Glu Ser Arg | 115 | 120 | 125 |
| Gln Pro Ser Glu Asn Ser Val Thr Asp Ser Asn Ser Asp Ser Glu Asp | 130 | 135 | 140 |
| Glu Ser Gly Met Asn Phe Leu Glu Lys Arg Ala Leu Asn Ile Lys Gln | 145 | 150 | 155 |
| Asn Lys Ala Met Leu Ala Lys Leu Met Ser Glu Leu Glu Ser Phe Pro | 165 | 170 | 175 |
| Gly Ser Phe Arg Gly Arg His Pro Leu Pro Gly Ser Asp Ser Gln Ser | 180 | 185 | 190 |
| Arg Arg Pro Arg Arg Arg Thr Phe Pro Gly Val Ala Ser Arg Arg Asn | 195 | 200 | 205 |
| Pro Glu Arg Arg Ala Arg Pro Leu Thr Arg Ser Arg Ser Arg Ile Leu | 210 | 215 | 220 |
| Gly Ser Leu Asp Ala Leu Pro Met Glu Glu Glu Glu Glu Asp Lys | 225 | 230 | 235 |
| Tyr Met Leu Val Arg Lys Arg Lys Thr Val Asp Gly Tyr Met Asn Glu | 245 | 250 | 255 |
| Asp Asp Leu Pro Arg Ser Arg Arg Ser Arg Ser Ser Val Thr Leu Pro | 260 | 265 | 270 |
| His Ile Ile Arg Pro Val Glu Glu Ile Thr Glu Glu Glu Leu Glu Asn | | | |

1179

275 280 285

Val Cys Ser Asn Ser Arg Glu Lys Ile Tyr Asn Arg Ser Leu Gly Ser
290 295 300

Thr Cys His Gln Cys Arg Gln Lys Thr Ile Asp Thr Lys Thr Asn Cys
305 310 315 320

Arg Asn Pro Asp Cys Trp Gly Val Arg Gly Gln Phe Cys Gly Pro Cys
325 330 335

Leu Arg Asn Arg Tyr Gly Glu Glu Val Arg Asp Ala Leu Leu Asp Pro
340 345 350

Asn Trp His Cys Pro Pro Cys Arg Gly Ile Cys Asn Cys Ser Phe Cys
355 360 365

Arg Gln Arg Asp Gly Arg Cys Ala Thr Gly Val Leu Val Tyr Leu Ala
370 375 380

Lys Tyr His Gly Phe Gly Asn Val His Ala Tyr Leu Lys Ser Leu Lys
385 390 395 400

Gln Glu Phe Glu Met Gln Ala
405

<210> 1166

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (197)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (201)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (202)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (219)

1180

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1166

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Gly | Arg | Pro | Thr | Gly | Asp | Ala | Phe | Val | Leu | Phe | Ala | Cys | Glu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Glu | Tyr | Ala | Gln | Asn | Ala | Leu | Arg | Lys | His | Lys | Asp | Leu | Leu | Gly | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Tyr | Ile | Glu | Leu | Phe | Arg | Ser | Thr | Ala | Ala | Glu | Val | Gln | Gln | Val |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Asn | Arg | Phe | Ser | Ser | Ala | Pro | Leu | Ile | Pro | Leu | Pro | Thr | Pro | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Ile | Pro | Val | Leu | Pro | Gln | Gln | Phe | Val | Pro | Pro | Thr | Asn | Val | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Cys | Ile | Arg | Leu | Arg | Gly | Leu | Pro | Tyr | Ala | Ala | Thr | Ile | Glu | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Leu | Asp | Phe | Leu | Gly | Glu | Phe | Ala | Thr | Asp | Ile | Arg | Thr | His | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Val | His | Met | Val | Leu | Asn | His | Gln | Gly | Arg | Pro | Ser | Gly | Asp | Ala | Phe |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Ile | Gln | Met | Lys | Ser | Ala | Asp | Arg | Ala | Phe | Met | Ala | Ala | Gln | Lys | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Lys | Lys | Asn | Met | Lys | Asp | Arg | Tyr | Val | Glu | Val | Phe | Gln | Cys | Ser |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Ala | Glu | Glu | Met | Asn | Phe | Val | Leu | Met | Gly | Gly | Thr | Leu | Asn | Arg | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Leu | Ser | Pro | Pro | Pro | Cys | Leu | Ser | Pro | Pro | Ser | Tyr | Thr | Phe | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Pro | Ala | Ala | Xaa | Ile | Pro | Thr | Xaa | Xaa | Ala | Ile | Tyr | Gln | Pro | Ser |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Val | Ile | Leu | Asn | Pro | Arg | Ala | Leu | Gln | Pro | Xaa | Thr | Ala | Tyr | Tyr | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Gly | Thr | Gln | Leu | Phe | Met | Asn | Tyr | Thr | Ala | Tyr | Tyr | Pro | Ser | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

1181

<210> 1167
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 1167
 Gly Gly Tyr Ser Val Asp Ser Pro Thr Leu Thr Arg Phe Phe Thr Phe
 1 5 10 15
 His Phe Ile Leu Pro Phe Ile Ile Ala Ala Leu Ala Ala Leu His Leu
 20 25 30
 Leu Phe Leu His Glu Thr Gly Ser Asn Asn Pro Leu Gly Ile Thr Ser
 35 40 45
 His Ser Asp Lys Ile Thr Phe His Pro Tyr Tyr Thr Ile Lys Asp Ala
 50 55 60
 Leu Gly Leu Leu Leu Phe Leu Leu Ser Leu Met Thr Leu Thr Leu Phe
 65 70 75 80
 Ser Pro Asp Leu Leu Gly Asp Pro Asp Asn Tyr Thr Leu Ala Asn Pro
 85 90 95
 Leu Asn Thr Pro Pro His Ile Lys Pro Glu
 100 105

<210> 1168
 <211> 210
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1168
 Gln His Val Gln Arg Glu Trp Ser Gly His Gly Glu Asp Arg Gly Asp
 1 5 10 15
 Gly Glu Asp Ala Glu Arg Gly Ser Cys Arg Glu Glu Pro Ala His Gly
 20 25 30
 Val Glu Gly Ala Gly Asp Gly Ala Ala Ala Ala Gly Pro Gly Gly Gly
 35 40 45

1182

Ala Ala Glu Ala Xaa Gln Val Glu Arg Arg Leu Gln Ser Glu Ser Ala
 50 55 60
 Arg Arg Gln Gln Leu Val Glu Lys Glu Val Lys Met Arg Glu Lys Gln
 65 70 75 80
 Phe Ser Gln Ala Arg Pro Leu Thr Arg Tyr Leu Pro Ile Arg Lys Glu
 85 90 95
 Asp Phe Asp Leu Lys Thr His Ile Glu Ser Ser Gly His Gly Val Asp
 100 105 110
 Thr Cys Leu His Val Val Leu Ser Ser Lys Val Cys Arg Gly Tyr Leu
 115 120 125
 Val Lys Met Gly Gly Lys Ile Lys Ser Trp Lys Lys Arg Trp Phe Val
 130 135 140
 Phe Asp Arg Leu Lys Arg Thr Leu Ser Tyr Tyr Val Asp Lys His Glu
 145 150 155 160
 Thr Lys Leu Lys Gly Val Ile Tyr Phe Gln Ala Ile Glu Gly Ser Val
 165 170 175
 Leu Arg Pro Pro Ala Pro Val Gln Pro Arg Arg Gly Phe Ser Ala Ser
 180 185 190
 Thr Met Val Thr Glu Lys Pro Glu Pro Ser Pro His Leu Leu Arg Lys
 195 200 205
 Asp Pro
 210

<210> 1169

<211> 181

<212> PRT

<213> Homo sapiens

<400> 1169

Thr Ser Lys Met Arg Ser Leu Glu Thr Leu Gly Arg Pro Lys Pro Glu
 1 5 10 15
 Cys Glu Gly Tyr Asp Pro Asn Ala Leu Tyr Cys Ile Cys Arg Gln Pro
 20 25 30
 His Asn Asn Arg Phe Met Ile Cys Cys Asp Arg Cys Glu Glu Trp Phe
 35 40 45
 His Gly Asp Cys Val Gly Ile Ser Glu Ala Arg Gly Arg Leu Leu Glu

1183

| | | |
|---|-----|---------|
| 50 | 55 | 60 |
| Arg Asn Gly Glu Asp Tyr Ile Cys Pro Asn Cys Thr Ile Leu Gln Val | | |
| 65 | 70 | 75 80 |
| Gln Asp Glu Thr His Ser Glu Thr Ala Asp Gln Gln Glu Ala Lys Trp | | |
| | 85 | 90 95 |
| Arg Pro Gly Asp Ala Asp Gly Thr Asp Cys Thr Ser Ile Gly Thr Ile | | |
| | 100 | 105 110 |
| Glu Gln Lys Ser Ser Glu Asp Gln Gly Ile Lys Gly Arg Ile Glu Lys | | |
| | 115 | 120 125 |
| Ala Ala Asn Pro Ser Gly Lys Lys Lys Leu Lys Ile Phe Gln Pro Val | | |
| | 130 | 135 140 |
| Ile Glu Ala Pro Gly Ala Ser Lys Cys Ile Gly Pro Gly Cys Cys His | | |
| 145 | 150 | 155 160 |
| Val Ala His Pro Thr Arg Cys Thr Ala Val Met Thr Val Ser Ser Asn | | |
| | 165 | 170 175 |
| Thr Pro Gln Arg Gln | | |
| | 180 | |

<210> 1170

<211> 166

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1170

| |
|---|
| Ala Gln Xaa Leu Ser Ser Pro Val Arg Gly Ile Ser Gly Glu Gln Ser |
| 1 5 10 15 |

1184

Thr Xaa Gly Ser Phe Pro Leu Arg Tyr Val Gln Asp Gln Val Ala Ala
 20 25 30

Pro Phe Gln Leu Ser Asn His Thr Gly Arg Ile Lys Val Val Phe Thr
 35 40 45

Pro Ser Ile Cys Lys Val Thr Cys Thr Lys Gly Ser Cys Gln Asn Ser
 50 55 60

Cys Glu Lys Gly Asn Thr Thr Thr Leu Ile Ser Glu Asn Gly His Ala
 65 70 75 80

Ala Asp Thr Leu Thr Ala Thr Asn Phe Arg Val Val Ile Cys His Leu
 85 90 95

Pro Cys Met Asn Gly Gly Gln Cys Ser Ser Arg Asp Lys Cys Gln Cys
 100 105 110

Pro Pro Asn Phe Thr Gly Lys Leu Cys Gln Ile Pro Val His Gly Ala
 115 120 125

Ser Val Xaa Lys Leu Tyr Gln His Ser Gln Gln Pro Gly Lys Ala Leu
 130 135 140

Gly Thr His Val Ile His Ser Thr His Thr Leu Pro Leu Thr Val Thr
 145 150 155 160

Ser Gln Gln Glu Ser Lys
 165

<210> 1171

<211> 37

<212> PRT

<213> Homo sapiens

<400> 1171

Asp Leu Ser Val Asn Phe Trp Glu Pro Asn Gly Phe Gly His Asp Phe
 1 5 10 15

Pro Ala His Tyr Ile Leu Thr Gln Asn Phe Phe Arg Met Ala Phe Thr
 20 25 30

Ser Thr Pro Glu Ile
 35

<210> 1172

1185

<211> 169
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (70)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (115)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (116)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (163)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (167)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1172
 Arg Gly Ala Met Val Ser Cys Arg Pro Gly Cys Cys Cys Pro Trp Thr
 1 5 10 15
 Pro Ala Val Leu Arg Xaa Ser Val Arg Gly Thr Phe Tyr Ser Pro Pro
 20 25 30
 Glu Ser Phe Ala Gly Ser Asp Asn Glu Ser Asp Glu Glu Val Ala Gly
 35 40 45
 Lys Lys Ser Phe Ser Ala Gln Glu Arg Glu Tyr Ile Arg Gln Gly Lys
 50 55 60
 Glu Ala Thr Ala Val Xaa Asp Gln Ile Leu Ala Gln Glu Glu Asn Trp
 65 70 75 80
 Lys Phe Glu Lys Asn Asn Glu Tyr Gly Asp Thr Val Tyr Thr Ile Glu

1186

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Val | Pro | Phe | His | Gly | Lys | Thr | Phe | Ile | Leu | Lys | Thr | Phe | Leu | Pro | Cys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Ala | Xaa | Xaa | Val | Tyr | Gln | Glu | Val | Ile | Leu | Gln | Pro | Glu | Arg | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Leu | Trp | Asn | Lys | Thr | Val | Thr | Ala | Cys | Gln | Ile | Leu | Gln | Arg | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Asp | Asn | Thr | Leu | Ile | Ser | Tyr | Asp | Val | Ser | Ala | Arg | Gly | Cys | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Arg | Xaa | Leu | Pro | Gln | Xaa | Thr | Ser | | | | | | | |
| | | | 165 | | | | | | | | | | | | |

<210> 1173

<211> 180

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (171)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1173

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Tyr | Gly | Asp | Thr | Val | Tyr | Thr | Ile | Glu | Val | Pro | Phe | His | Gly | Lys |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Phe | Ile | Leu | Lys | Thr | Phe | Leu | Pro | Cys | Pro | Ala | Glu | Leu | Val | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Val | Ile | Leu | Gln | Pro | Glu | Arg | Met | Val | Leu | Trp | Asn | Lys | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Ala | Cys | Gln | Ile | Leu | Gln | Arg | Val | Glu | Asp | Asn | Thr | Leu | Ile |
| | 50 | | | | | 55 | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Tyr | Asp | Val | Ser | Ala | Gly | Ala | Ala | Gly | Gly | Val | Val | Ser | Pro | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Phe | Val | Asn | Val | Arg | Arg | Ile | Glu | Arg | Arg | Arg | Asp | Arg | Tyr | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Gly | Ile | Ala | Thr | Ser | His | Ser | Ala | Lys | Pro | Pro | Thr | His | Lys |
| | | 100 | | | | | | 105 | | | | | 110 | | |

[illegible]

```
<210> 1174
<211> 436
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (426)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1174
Arg His Gln Arg Arg Arg Ser Val Trp Arg Ser Arg Gly Xaa Cys Cys
 1               5               10               15

Arg Cys Cys Cys Thr Asn Arg Arg Ser Pro Gln Pro Cys Ala Ser Ser
 20               25               30

Leu Pro Pro Arg Thr Gly Glu Lys Gln Pro Arg Asn Phe Met Asn Lys
 35               40               45

His Gln Lys Pro Val Leu Thr Gly Gln Arg Phe Lys Thr Arg Lys Arg
 50               55               60

Asp Glu Lys Glu Lys Phe Glu Pro Thr Val Phe Arg Asp Thr Leu Val
 65               70               75               80

Gln Gly Leu Asn Glu Ala Gly Asp Asp Leu Glu Ala Val Ala Lys Phe
 85               90               95

```

1188

Leu Asp Ser Thr Gly Ser Arg Leu Asp Tyr Arg Arg Tyr Ala Asp Thr
 100 105 110

Leu Phe Asp Ile Leu Val Ala Gly Ser Met Leu Ala Pro Gly Gly Thr
 115 120 125

Arg Ile Asp Asp Gly Asp Lys Thr Lys Met Thr Asn His Cys Val Phe
 130 135 140

Ser Ala Asn Glu Asp His Glu Thr Ile Arg Asn Tyr Ala Gln Val Phe
 145 150 155 160

Asn Lys Leu Ile Arg Arg Tyr Lys Tyr Leu Glu Lys Ala Phe Glu Asp
 165 170 175

Glu Met Lys Lys Leu Leu Leu Phe Leu Lys Ala Phe Ser Glu Thr Glu
 180 185 190

Gln Thr Lys Leu Ala Met Leu Ser Gly Ile Leu Leu Gly Asn Gly Thr
 195 200 205

Leu Pro Ala Thr Ile Leu Thr Ser Leu Phe Thr Asp Ser Leu Val Lys
 210 215 220

Glu Gly Ile Ala Ala Ser Phe Ala Val Lys Leu Phe Lys Ala Trp Met
 225 230 235 240

Ala Glu Lys Asp Ala Asn Ser Val Thr Ser Ser Leu Arg Lys Ala Asn
 245 250 255

Leu Asp Lys Arg Leu Leu Glu Leu Phe Pro Val Asn Arg Gln Ser Val
 260 265 270

Asp His Phe Ala Lys Tyr Phe Thr Asp Ala Gly Leu Lys Glu Leu Ser
 275 280 285

Asp Phe Leu Arg Val Gln Gln Ser Leu Gly Thr Arg Lys Glu Leu Gln
 290 295 300

Lys Glu Leu Gln Glu Arg Leu Ser Gln Glu Cys Pro Ile Lys Glu Val
 305 310 315 320

Val Leu Tyr Val Lys Glu Glu Met Lys Arg Asn Asp Leu Pro Glu Thr
 325 330 335

Ala Val Ile Gly Leu Leu Trp Thr Cys Ile Met Asn Ala Val Glu Trp
 340 345 350

Asn Lys Lys Glu Glu Leu Val Ala Glu Gln Ala Leu Lys His Leu Lys
 355 360 365

1189

Gln Tyr Ala Pro Leu Leu Ala Val Phe Ser Ser Gln Gly Gln Ser Glu
 370 375 380

Leu Ile Leu Leu Gln Lys Val Gln Glu Tyr Cys Tyr Asp Asn Ile His
 385 390 395 400

Phe Met Lys Ala Phe Gln Lys Ile Val Leu Pro Tyr Thr Ile Ser Val
 405 410 415

Leu Leu Leu Arg Ser Glu His Gln Leu Xaa Ser Cys Arg Phe Gly Thr
 420 425 430

Ser Gly Thr Ser
 435

<210> 1175

<211> 366

<212> PRT

<213> Homo sapiens

<400> 1175

Thr Glu Pro Val Gly Tyr Thr Lys Ala Glu Glu Pro Ile Ala Met Arg
 1 5 10 15

Ser Leu Gly Ala Leu Leu Leu Leu Leu Ser Ala Cys Leu Ala Val Ser
 20 25 30

Ala Gly Pro Val Pro Thr Pro Pro Asp Asn Ile Gln Val Gln Glu Asn
 35 40 45

Phe Asn Ile Ser Arg Ile Tyr Gly Lys Trp Tyr Asn Leu Ala Ile Gly
 50 55 60

Ser Thr Cys Pro Trp Leu Lys Lys Ile Met Asp Arg Met Thr Val Ser
 65 70 75 80

Thr Leu Val Leu Gly Glu Gly Ala Thr Glu Ala Glu Ile Ser Met Thr
 85 90 95

Ser Thr Arg Trp Arg Lys Gly Val Cys Glu Glu Thr Ser Gly Ala Tyr
 100 105 110

Glu Lys Thr Asp Thr Asp Gly Lys Phe Leu Tyr His Lys Ser Lys Trp
 115 120 125

Asn Ile Thr Met Glu Ser Tyr Val Val His Thr Asn Tyr Asp Glu Tyr
 130 135 140

Ala Ile Phe Leu Thr Lys Lys Phe Ser Arg His His Gly Pro Thr Ile

1190

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 | | | | | | | | | |
| Thr | Ala | Lys | Leu | Tyr | Gly | Arg | Ala | Pro | Gln | Leu | Arg | Glu | Thr | Leu | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gln | Asp | Phe | Arg | Val | Val | Ala | Gln | Gly | Val | Gly | Ile | Pro | Glu | Asp | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Phe | Thr | Met | Ala | Asp | Arg | Gly | Glu | Cys | Val | Pro | Gly | Glu | Gln | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Glu | Pro | Ile | Leu | Ile | Pro | Arg | Val | Arg | Arg | Ala | Val | Leu | Pro | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Glu | Glu | Gly | Ser | Gly | Gly | Gly | Gln | Leu | Val | Thr | Glu | Val | Thr | Lys |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Lys | Glu | Asp | Ser | Cys | Gln | Leu | Gly | Tyr | Ser | Ala | Gly | Pro | Cys | Met | Gly |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Met | Thr | Ser | Arg | Tyr | Phe | Tyr | Asn | Gly | Thr | Ser | Met | Ala | Cys | Glu | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Gln | Tyr | Gly | Gly | Cys | Met | Gly | Asn | Gly | Asn | Asn | Phe | Val | Thr | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Lys | Glu | Cys | Leu | Gln | Thr | Cys | Arg | Thr | Val | Ala | Ala | Cys | Asn | Leu | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Val | Arg | Gly | Pro | Cys | Arg | Ala | Phe | Ile | Gln | Leu | Trp | Ala | Phe | Asp |
| 305 | | | | 310 | | | | | | 315 | | | | 320 | |
| Ala | Val | Lys | Gly | Lys | Cys | Val | Leu | Phe | Pro | Tyr | Gly | Gly | Cys | Gln | Gly |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Asn | Gly | Asn | Lys | Phe | Tyr | Ser | Glu | Lys | Glu | Cys | Arg | Glu | Tyr | Cys | Gly |
| | | | 340 | | | | | 345 | | | | 350 | | | |
| Val | Pro | Gly | Asp | Gly | Asp | Glu | Glu | Leu | Leu | Arg | Phe | Ser | Asn | | |
| | | 355 | | | | 360 | | | | | | 365 | | | |

<210> 1176

<211> 133

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (105)

1191

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1176

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Arg | Ser | Ser | His | His | Pro | Pro | Arg | Arg | His | Tyr | His | His | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Tyr | His | Gln | Pro | Pro | Pro | Ser | Pro | Cys | Pro | Ser | Pro | Pro | Leu | Thr |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Ser | Pro | Leu | Ser | Trp | Ile | Leu | Trp | Thr | Cys | Trp | Pro | Ser | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Thr | Arg | Pro | Gly | Arg | Arg | Lys | Trp | Gly | Cys | Arg | Leu | Cys | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | His | Ser | Ser | Pro | Leu | Leu | Leu | Leu | His | Leu | Asn | Leu | Leu | Ala | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Tyr | Pro | His | Pro | Ala | Thr | Thr | Arg | Gly | Asp | Arg | Lys | Gln | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Asp | Gln | Asn | Lys | Ser | Ala | Xaa | Leu | Arg | Tyr | Arg | Gln | Arg | Lys |
| | | | 100 | | | | | | 105 | | | | | 110 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Gly | Gly | Val | Glu | Gly | Xaa | Gly | Lys | Gly | Lys | Leu | Xaa | Gly | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | |
|-----|-----|-----|-----|-----|
| Trp | Glu | Gly | Lys | Gly |
| | | | | 130 |

<210> 1177

<211> 583

<212> PRT

<213> Homo sapiens

<400> 1177

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Gln | Arg | Pro | Arg | Ser | Pro | Glu | Asn | Cys | Arg | Pro | Ser | Thr | Met |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

1192

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Leu | Arg | Ala | Phe | Ile | Leu | Ala | Thr | Leu | Ser | Ala | Ser | Ala | Ala | Trp | 20 | 25 | 30 | |
| Ala | Gly | His | Pro | Ser | Ser | Pro | Pro | Val | Val | Asp | Thr | Val | His | Gly | Lys | 35 | 40 | 45 | |
| Val | Leu | Gly | Lys | Phe | Val | Ser | Leu | Glu | Gly | Phe | Ala | Gln | Pro | Val | Ala | 50 | 55 | 60 | |
| Ile | Phe | Leu | Gly | Ile | Pro | Phe | Ala | Lys | Pro | Pro | Leu | Gly | Pro | Leu | Arg | 65 | 70 | 75 | 80 |
| Phe | Thr | Pro | Pro | Gln | Pro | Ala | Glu | Pro | Trp | Ser | Phe | Val | Lys | Asn | Ala | 85 | 90 | 95 | |
| Thr | Ser | Tyr | Pro | Pro | Met | Cys | Thr | Gln | Asp | Pro | Lys | Ala | Gly | Gln | Leu | 100 | 105 | 110 | |
| Leu | Ser | Glu | Leu | Phe | Thr | Asn | Arg | Lys | Glu | Asn | Ile | Pro | Leu | Lys | Leu | 115 | 120 | 125 | |
| Ser | Glu | Asp | Cys | Leu | Tyr | Leu | Asn | Ile | Tyr | Thr | Pro | Ala | Asp | Leu | Thr | 130 | 135 | 140 | |
| Lys | Lys | Asn | Arg | Leu | Pro | Val | Met | Val | Trp | Ile | His | Gly | Gly | Gly | Leu | 145 | 150 | 155 | 160 |
| Met | Val | Gly | Ala | Ala | Ser | Thr | Tyr | Asp | Gly | Leu | Ala | Leu | Ala | Ala | His | 165 | 170 | 175 | |
| Glu | Asn | Val | Val | Val | Val | Thr | Ile | Gln | Tyr | Arg | Leu | Gly | Ile | Trp | Gly | 180 | 185 | 190 | |
| Phe | Phe | Ser | Thr | Gly | Asp | Glu | His | Ser | Arg | Gly | Asn | Trp | Gly | His | Leu | 195 | 200 | 205 | |
| Asp | Gln | Val | Ala | Ala | Leu | Arg | Trp | Val | Gln | Asp | Asn | Ile | Ala | Ser | Phe | 210 | 215 | 220 | |
| Gly | Gly | Asn | Pro | Gly | Ser | Val | Thr | Ile | Phe | Gly | Glu | Ser | Ala | Gly | Gly | 225 | 230 | 235 | 240 |
| Glu | Ser | Val | Ser | Val | Leu | Val | Leu | Ser | Pro | Leu | Ala | Lys | Asn | Leu | Phe | 245 | 250 | 255 | |
| His | Arg | Ala | Ile | Ser | Glu | Ser | Gly | Val | Ala | Leu | Thr | Ser | Val | Leu | Val | 260 | 265 | 270 | |
| Lys | Lys | Gly | Asp | Val | Lys | Pro | Leu | Ala | Glu | Gln | Ile | Ala | Ile | Thr | Ala | 275 | 280 | 285 | |

1193

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Lys | Thr | Thr | Thr | Ser | Ala | Val | Met | Val | His | Cys | Leu | Arg | Gln | 290 | 295 | 300 | |
| Lys | Thr | Glu | Glu | Glu | Leu | Leu | Glu | Thr | Thr | Leu | Lys | Met | Lys | Phe | Leu | 305 | 310 | 315 | 320 |
| Ser | Leu | Asp | Leu | Gln | Gly | Asp | Pro | Arg | Glu | Ser | Gln | Pro | Leu | Leu | Gly | 325 | 330 | 335 | |
| Thr | Val | Ile | Asp | Gly | Met | Leu | Leu | Leu | Lys | Thr | Pro | Glu | Glu | Leu | Gln | 340 | 345 | 350 | |
| Ala | Glu | Arg | Asn | Phe | His | Thr | Val | Pro | Tyr | Met | Val | Gly | Ile | Asn | Lys | 355 | 360 | 365 | |
| Gln | Glu | Phe | Gly | Trp | Leu | Ile | Pro | Met | Gln | Leu | Met | Ser | Tyr | Pro | Leu | 370 | 375 | 380 | |
| Ser | Glu | Gly | Gln | Leu | Asp | Gln | Lys | Thr | Ala | Met | Ser | Leu | Leu | Trp | Lys | 385 | 390 | 395 | 400 |
| Ser | Tyr | Pro | Leu | Val | Cys | Ile | Ala | Lys | Glu | Leu | Ile | Pro | Glu | Ala | Thr | 405 | 410 | 415 | |
| Glu | Lys | Tyr | Leu | Gly | Gly | Thr | Asp | Asp | Thr | Val | Lys | Lys | Lys | Asp | Leu | 420 | 425 | 430 | |
| Phe | Leu | Asp | Leu | Ile | Ala | Asp | Val | Met | Phe | Gly | Val | Pro | Ser | Val | Ile | 435 | 440 | 445 | |
| Val | Ala | Arg | Asn | His | Arg | Asp | Ala | Gly | Ala | Pro | Thr | Tyr | Met | Tyr | Glu | 450 | 455 | 460 | |
| Phe | Gln | Tyr | Arg | Pro | Ser | Phe | Ser | Ser | Asp | Met | Lys | Pro | Lys | Thr | Val | 465 | 470 | 475 | 480 |
| Ile | Gly | Asp | His | Gly | Asp | Glu | Leu | Phe | Ser | Val | Phe | Gly | Ala | Pro | Phe | 485 | 490 | 495 | |
| Leu | Lys | Glu | Gly | Ala | Ser | Glu | Glu | Glu | Ile | Arg | Leu | Ser | Lys | Met | Val | 500 | 505 | 510 | |
| Met | Lys | Phe | Trp | Ala | Asn | Phe | Ala | Arg | Asn | Gly | Asn | Pro | Asn | Gly | Glu | 515 | 520 | 525 | |
| Gly | Leu | Pro | His | Trp | Pro | Glu | Tyr | Asn | Gln | Lys | Glu | Gly | Tyr | Leu | Gln | 530 | 535 | 540 | |
| Ile | Gly | Ala | Asn | Thr | Gln | Ala | Ala | Gln | Lys | Leu | Lys | Asp | Lys | Glu | Val | 545 | 550 | 555 | 560 |

1194

Ala Phe Trp Thr Asn Leu Phe Ala Lys Lys Ala Val Glu Lys Pro Pro
 565 570 575

Gln Thr Glu His Ile Glu Leu
 580

<210> 1178

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1178

Pro Gly Arg Xaa Gln Leu Arg Ala Lys Phe Ser Cys Pro Pro Ala Asp
 1 5 10 15

Arg Val Asn Val Thr Val Arg Pro Gly Leu Ala Met Ala Leu Ser Gly
 20 25 30

Ser Thr Glu Pro Cys Ala Gln Leu Ser Ile Ser Ser Ile Gly Val Val
 35 40 45

Gly Thr Ala Glu Asp Asn Arg Ser His Ser Ala His Phe Phe Glu Phe
 50 55 60

Leu Thr Lys Glu Leu Ala Leu Gly Gln Asp Arg Ile Leu Ile Arg Phe
 65 70 75 80

Phe Pro Leu Glu Ser Trp Gln Ile Gly Lys Ile Gly Thr Val Met Thr
 85 90 95

Phe Leu

<210> 1179

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

1195

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1179

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Pro | Ala | Val | Ser | Xaa | Gly | Ser | Leu | Cys | Leu | Pro | Ala | Arg | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | His | Ser | Pro | Ala | Ser | Ser | Ala | Ala | Cys | Arg | Thr | Met | Ala | Gln | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Arg | Lys | Phe | Gln | Ala | His | Lys | Pro | Ala | Lys | Ser | Lys | Thr | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Xaa | Ser | Glu | Lys | Asn | Arg | Gly | Pro | Arg | Lys | Gly | Gly | Arg | Val | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Pro | Xaa | Lys | Ala | Arg | Val | Val | Gln | Gln | Gln | Lys | Leu | Lys | Lys | Asn |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Glu | Val | Gly | Ile | Arg | Lys | Lys | Ile | Glu | His | Asp | Val | Val | Met | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ser | Ser | Ser | Leu | Pro | Lys | Lys | Leu | Ala | Leu | Leu | Lys | Ala | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Lys | Lys | Gly | Ala | Ala | Ala | Ala | Thr | Ser | Ser | Lys | Thr | Pro | Ser | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 1180

<211> 94

<212> PRT

<213> Homo sapiens

<400> 1180

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Tyr | Arg | Ser | Lys | Ala | Tyr | Thr | His | Thr | Lys | Ile | Thr | Val | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Glu | Arg | Val | Cys | Val | Ser | Val | Arg | Val | Ser | Val | Cys | Ala | Arg | Ala |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Arg | Ser | Trp | Pro | Asn | Val | Arg | Thr | Leu | His | Lys | Gly | Gly | Arg | Ser | Ser |

1196

35 40 45
 Tyr Arg Leu Phe Asn Val Arg Glu Thr Ile Phe Leu Leu Phe Gln Leu
 50 55 60
 Tyr Gln Ile Leu Val Pro Gln His Arg Asn Asp Ser Glu Ser Gln Thr
 65 70 75 80
 Lys Cys Ile Ile Cys Ser Ile Leu Ile Leu Leu Leu His Ser
 85 90

<210> 1181

<211> 353

<212> PRT

<213> Homo sapiens

<400> 1181

Gly Ser Leu Asp Leu Trp Arg Gly Ala Glu Leu Ser Pro Gly His Ser
 1 5 10 15
 Thr Leu Phe Thr Leu Cys Ala Cys Ala Lys Gly Ala Met Ala Ala Ser
 20 25 30
 Cys Val Leu Leu His Thr Gly Gln Lys Met Pro Leu Ile Gly Leu Gly
 35 40 45
 Thr Trp Lys Ser Glu Pro Gly Gln Val Lys Ala Ala Val Lys Tyr Ala
 50 55 60
 Leu Ser Val Gly Tyr Arg His Ile Asp Cys Ala Ala Ile Tyr Gly Asn
 65 70 75 80
 Glu Pro Glu Ile Gly Glu Ala Leu Lys Glu Asp Val Gly Pro Gly Lys
 85 90 95
 Ala Val Pro Arg Glu Glu Leu Phe Val Thr Ser Lys Leu Trp Asn Thr
 100 105 110
 Lys His His Pro Glu Asp Val Glu Pro Ala Leu Arg Lys Thr Leu Ala
 115 120 125
 Asp Leu Gln Leu Glu Tyr Leu Asp Leu Tyr Leu Met His Trp Pro Tyr
 130 135 140
 Ala Phe Glu Arg Gly Asp Asn Pro Phe Pro Lys Asn Ala Asp Gly Thr
 145 150 155 160
 Ile Cys Tyr Asp Ser Thr His Tyr Lys Glu Thr Trp Lys Ala Leu Glu
 165 170 175

1197

Ala Leu Val Ala Lys Gly Leu Val Gln Ala Leu Gly Leu Ser Asn Phe
 180 185 190
 Asn Ser Arg Gln Ile Asp Asp Ile Leu Ser Val Ala Ser Val Arg Pro
 195 200 205
 Ala Val Leu Gln Val Glu Cys His Pro Tyr Leu Ala Gln Asn Glu Leu
 210 215 220
 Ile Ala His Cys Gln Ala Arg Gly Leu Glu Val Thr Ala Tyr Ser Pro
 225 230 235 240
 Leu Gly Ser Ser Asp Arg Ala Trp Arg Asp Pro Asp Glu Pro Val Leu
 245 250 255
 Leu Glu Glu Pro Val Val Leu Ala Leu Ala Glu Lys Tyr Gly Arg Ser
 260 265 270
 Pro Ala Gln Ile Leu Leu Arg Trp Gln Val Gln Arg Lys Val Ile Cys
 275 280 285
 Ile Pro Lys Ser Ile Thr Pro Ser Arg Ile Leu Gln Asn Ile Lys Val
 290 295 300
 Phe Asp Phe Thr Phe Ser Pro Glu Glu Met Lys Gln Leu Asn Ala Leu
 305 310 315 320
 Asn Lys Asn Trp Arg Tyr Ile Val Pro Met Leu Thr Val Asp Gly Lys
 325 330 335
 Arg Val Pro Arg Asp Ala Gly His Pro Leu Tyr Pro Phe Asn Asp Pro
 340 345 350

Tyr

<210> 1182

<211> 174

<212> PRT

<213> Homo sapiens

<400> 1182

Ala Arg Asp Ser Leu Gln Leu Ser Met Ala Gln Thr Ser Ser Tyr Phe
 1 5 10 15

Met Leu Ile Ser Cys Leu Met Phe Leu Ser Gln Ser Gln Gly Gln Glu
 20 25 30

1198

Ala Gln Thr Glu Leu Pro Gln Ala Arg Ile Ser Cys Pro Glu Gly Thr
 35 40 45
 Asn Ala Tyr Arg Ser Tyr Cys Tyr Tyr Phe Asn Glu Asp Arg Glu Thr
 50 55 60
 Trp Val Asp Ala Asp Leu Tyr Cys Gln Asn Met Asn Ser Gly Asn Leu
 65 70 75 80
 Val Ser Val Leu Thr Gln Ala Glu Gly Ala Phe Val Ala Ser Leu Ile
 85 90 95
 Lys Glu Ser Gly Thr Asp Asp Phe Asn Val Trp Ile Gly Leu His Asp
 100 105 110
 Pro Lys Lys Asn Arg Arg Trp His Trp Ser Ser Gly Ser Leu Val Ser
 115 120 125
 Tyr Lys Ser Trp Gly Ile Gly Ala Pro Ser Ser Val Asn Pro Gly Tyr
 130 135 140
 Cys Val Ser Leu Thr Ser Ser Thr Gly Phe Gln Lys Trp Lys Asp Val
 145 150 155 160
 Pro Cys Glu Asp Lys Phe Ser Phe Val Cys Lys Phe Lys Asn
 165 170

<210> 1183

<211> 342

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (169)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (171)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1199

<222> (302)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (308)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1183

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Phe | Ser | Tyr | Ile | Arg | Leu | Glu | Leu | Pro | Ser | Met | Trp | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Val | Ile | Leu | Ile | Ser | Arg | Ile | Ser | Ser | Val | Gly | Gly | Glu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Phe | Cys | Asp | Phe | Pro | Lys | Ile | Asn | His | Gly | Ile | Leu | Tyr | Asp | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Tyr | Lys | Pro | Phe | Ser | Gln | Val | Pro | Thr | Gly | Glu | Val | Phe | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ser | Cys | Glu | Tyr | Asn | Phe | Val | Ser | Pro | Ser | Lys | Ser | Phe | Trp | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ile | Thr | Cys | Thr | Glu | Glu | Gly | Trp | Ser | Pro | Thr | Pro | Lys | Cys | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Cys | Phe | Phe | Pro | Phe | Val | Glu | Asn | Gly | His | Ser | Glu | Ser | Ser |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Thr | His | Leu | Glu | Gly | Asp | Thr | Val | Gln | Ile | Ile | Cys | Asn | Thr |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Tyr | Arg | Leu | Gln | Asn | Asn | Glu | Asn | Asn | Ile | Ser | Cys | Val | Glu | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Trp | Ser | Thr | Pro | Pro | Lys | Cys | Arg | Ser | Thr | Asp | Thr | Ser | Cys | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Pro | Pro | Thr | Val | Gln | Asn | Ala | Xaa | Ile | Xaa | Ser | Arg | Gln | Met | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Tyr | Pro | Ser | Gly | Glu | Arg | Val | Arg | Tyr | Xaa | Cys | Arg | Ser | Pro | Tyr |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Met | Phe | Gly | Asp | Glu | Glu | Val | Met | Cys | Leu | Asn | Gly | Asn | Trp | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Pro | Gln | Cys | Lys | Asp | Ser | Thr | Gly | Lys | Cys | Gly | Pro | Pro | Pro |
| | 210 | | | | | 215 | | | | | | 220 | | | |

1200

Pro Ile Asp Asn Gly Asp Ile Thr Ser Phe Pro Leu Ser Val Tyr Ala
225 230 235 240

Pro Ala Ser Ser Val Glu Tyr Gln Cys Gln Asn Leu Tyr Gln Leu Glu
245 250 255

Gly Asn Lys Arg Ile Thr Cys Arg Asn Gly Gln Trp Ser Glu Pro Pro
260 265 270

Lys Cys Leu His Pro Cys Val Ile Ser Arg Glu Ile Met Glu Asn Tyr
275 280 285

Asn Ile Ala Leu Arg Trp Thr Ala Lys Gln Lys Leu Tyr Xaa Arg Thr
290 295 300

Gly Glu Ser Xaa Glu Phe Val Cys Lys Arg Gly Tyr Arg Leu Ser Ser
305 310 315 320

Arg Ser His Thr Leu Arg Thr Thr Cys Trp Asp Gly Lys Leu Glu Tyr
325 330 335

Pro Thr Cys Ala Lys Arg
340

<210> 1184

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1184

Pro Xaa Arg Pro Arg Gly Ala Ala Ala Ala Ala Ala Ala Gly Ala
1 5 10 15

Ala Met Pro Lys Gly Gly Arg Lys Gly Gly His Lys Gly Arg Ala Arg
20 25 30

Gln Tyr Thr Ser Pro Glu Glu Ile Asp Ala Gln Leu Gln Ala Glu Lys
35 40 45

1201

Gln Lys Ala Arg Glu Glu Glu Glu Gln Lys Glu Gly Gly Asp Gly Ala
 50 55 60
 Ala Gly Asp Pro Lys Lys Glu Lys Lys Ser Leu Asp Ser Asp Glu Ser
 65 70 75 80
 Glu Asp Glu Glu Asp Asp Tyr Gln Gln Lys Arg Lys Gly Val Glu Gly
 85 90 95
 Leu Ile Asp Ile Glu Asn Pro Asn Arg Val Ala Gln Thr Thr Lys Lys
 100 105 110
 Val Thr Gln Leu Asp Leu Asp Gly Pro Lys Glu Leu Ser Arg Arg Glu
 115 120 125
 Arg Glu Glu Ile Glu Lys Gln Lys Ala Lys Glu Arg Tyr Met Lys Met
 130 135 140
 His Leu Ala Gly Lys Thr Glu Gln Ala Lys Ala Asp Leu Ala Arg Leu
 145 150 155 160
 Xaa Ile Ile Arg Lys Gln Arg Glu Glu Ala Ala Arg Lys Lys Glu Glu
 165 170 175
 Glu Arg Lys Ala Lys Asp Asp Ala Thr Leu Ser Gly Lys Arg Met Gln
 180 185 190
 Ser Leu Ser Leu Asn Lys
 195

<210> 1185

<211> 210

<212> PRT

<213> Homo sapiens

<400> 1185

Ala His Ala Ser Ala His Ala Ser Gly Met Asp Leu Ser Leu Leu Trp
 1 5 10 15
 Val Leu Leu Pro Leu Val Thr Met Ala Trp Gly Gln Tyr Gly Asp Tyr
 20 25 30
 Gly Tyr Pro Tyr Gln Gln Tyr His Asp Tyr Ser Asp Asp Gly Trp Val
 35 40 45
 Asn Leu Asn Arg Gln Gly Phe Ser Tyr Gln Cys Pro Gln Gly Gln Val
 50 55 60
 Ile Val Ala Val Arg Ser Ile Phe Ser Lys Lys Glu Gly Ser Asp Arg

1202

```
<210> 1186
<211> 141
<212> PRT
<213> Homo sapiens
```

```

<400> 1186
Arg Ala Ile Tyr Phe Leu Arg Val His Arg Leu Trp Ser Ser Ile Ser
 1             5             10             15
Leu Leu Phe Phe Pro Ser Ala Lys Met Ala Leu Glu Thr Val Pro Lys
      20             25             30
Asp Leu Arg His Leu Arg Ala Cys Leu Leu Cys Ser Leu Val Lys Thr
      35             40             45
Ile Asp Gln Phe Glu Tyr Asp Gly Cys Asp Asn Cys Asp Ala Tyr Leu
      50             55             60
Gln Met Lys Gly Asn Arg Glu Met Val Tyr Asp Cys Thr Ser Ser Ser
      65             70             75             80

```


Gly Val Ala Tyr Lys Ser Arg Asp Thr Ala Ile Lys Thr
130 135 140

<210> 1187

<211> 76

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1187

Leu Leu Gly Ser Cys Leu Gln Glu Ala Met Thr Leu Asn Ser Glu Pro
1 5 10 15

Tyr Ser Val Leu Thr Ser Gly Ser His Val Phe Leu Cys Gln Val Ile
20 25 30

Lys Tyr Leu Val Leu Val Phe Cys Leu Xaa Pro Lys Leu Pro Leu Trp
35 40 45

Val His Arg Arg Leu Gly Ser Ile Val Arg Met Ala Ile Arg Glu Tyr
50 55 60

Lys Xaa Gly Phe Ser Lys Gly Leu Gly Xaa Asp Ser
65 70 75

1204

<210> 1188

<211> 516

<212> PRT

<213> Homo sapiens

<400> 1188

```

Ile Arg Ile Ala Ala Leu Asp Asp Phe Arg Thr Ser Leu Thr Met Ser
 1             5             10             15

Ser Thr Arg Ser Gln Asn Pro His Gly Leu Lys Gln Ile Gly Leu Asp
      20             25             30

Gln Ile Trp Asp Asp Leu Arg Ala Gly Ile Gln Gln Val Tyr Thr Arg
      35             40             45

Gln Ser Met Ala Lys Ser Arg Tyr Met Glu Leu Tyr Thr His Val Tyr
      50             55             60

Asn Tyr Cys Thr Ser Val His Gln Ser Asn Gln Ala Arg Gly Ala Gly
      65             70             75             80

Val Pro Pro Ser Lys Ser Lys Lys Gly Gln Thr Pro Gly Gly Ala Gln
      85             90             95

Phe Val Gly Leu Glu Leu Tyr Lys Arg Leu Lys Glu Phe Leu Lys Asn
      100            105            110

Tyr Leu Thr Asn Leu Leu Lys Asp Gly Glu Asp Leu Met Asp Glu Ser
      115            120            125

Val Leu Lys Phe Tyr Thr Gln Gln Trp Glu Asp Tyr Arg Phe Ser Ser
      130            135            140

Lys Val Leu Asn Gly Ile Cys Ala Tyr Leu Asn Arg His Trp Val Arg
      145            150            155            160

Arg Glu Cys Asp Glu Gly Arg Lys Gly Ile Tyr Glu Ile Tyr Ser Leu
      165            170            175

Ala Leu Val Thr Trp Arg Asp Cys Leu Phe Arg Pro Leu Asn Lys Gln
      180            185            190

Val Thr Asn Ala Val Leu Lys Leu Ile Glu Lys Glu Arg Asn Gly Glu
      195            200            205

Thr Ile Asn Thr Arg Leu Ile Ser Gly Val Val Gln Ser Tyr Val Glu
      210            215            220

Leu Gly Leu Asn Glu Asp Asp Ala Phe Ala Lys Gly Pro Thr Leu Thr

```

1205

| | | | | | | |
|---|--|-----|--|-----|--|-----|
| 225 | | 230 | | 235 | | 240 |
| Val Tyr Lys Glu Ser Phe Glu Ser Gln Phe Leu Ala Asp Thr Glu Arg | | | | | | |
| | | 245 | | 250 | | 255 |
| Phe Tyr Thr Arg Glu Ser Thr Glu Phe Leu Gln Gln Asn Pro Val Thr | | | | | | |
| | | 260 | | 265 | | 270 |
| Glu Tyr Met Lys Lys Ala Glu Ala Arg Leu Leu Glu Glu Gln Arg Arg | | | | | | |
| | | 275 | | 280 | | 285 |
| Val Gln Val Tyr Leu His Glu Ser Thr Gln Asp Glu Leu Ala Arg Lys | | | | | | |
| | | 290 | | 295 | | 300 |
| Cys Glu Gln Val Leu Ile Glu Lys His Leu Glu Ile Phe His Thr Glu | | | | | | |
| | | 305 | | 310 | | 315 |
| | | | | | | 320 |
| Phe Gln Asn Leu Leu Asp Ala Asp Lys Asn Glu Asp Leu Gly Arg Met | | | | | | |
| | | 325 | | 330 | | 335 |
| Tyr Asn Leu Val Ser Arg Ile Gln Asp Gly Leu Gly Glu Leu Lys Lys | | | | | | |
| | | 340 | | 345 | | 350 |
| Leu Leu Glu Thr His Ile His Asn Gln Gly Leu Ala Ala Ile Glu Lys | | | | | | |
| | | 355 | | 360 | | 365 |
| Cys Gly Glu Ala Ala Leu Asn Asp Pro Lys Met Tyr Val Gln Thr Val | | | | | | |
| | | 370 | | 375 | | 380 |
| Leu Asp Val His Lys Lys Tyr Asn Ala Leu Val Met Ser Ala Phe Asn | | | | | | |
| | | 385 | | 390 | | 395 |
| | | | | | | 400 |
| Asn Asp Ala Gly Phe Val Ala Ala Leu Asp Lys Ala Cys Gly Arg Phe | | | | | | |
| | | 405 | | 410 | | 415 |
| Ile Asn Asn Asn Ala Val Thr Lys Met Ala Gln Ser Ser Ser Lys Ser | | | | | | |
| | | 420 | | 425 | | 430 |
| Pro Glu Leu Leu Ala Arg Tyr Cys Asp Ser Leu Leu Lys Lys Ser Ser | | | | | | |
| | | 435 | | 440 | | 445 |
| Lys Asn Pro Glu Glu Ala Glu Leu Glu Asp Thr Leu Asn Gln Val Met | | | | | | |
| | | 450 | | 455 | | 460 |
| Val Val Phe Lys Tyr Ile Glu Asp Lys Asp Val Phe Gln Lys Phe Tyr | | | | | | |
| | | 465 | | 470 | | 475 |
| | | | | | | 480 |
| Ala Lys Met Leu Ala Lys Arg Leu Val His Gln Asn Ser Ala Ser Asp | | | | | | |
| | | 485 | | 490 | | 495 |
| Asp Ala Glu Ala Ser Met Ile Ser Lys Leu Lys Gln Ala Cys Gly Phe | | | | | | |

1206

500

505

510

Glu Tyr Thr Ser
515

<210> 1189

<211> 287

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (172)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (254)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (271)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (274)

<223> Xaa equals any of the naturally occurring L-amino acids

1207

<220>

<221> SITE

<222> (275)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (280)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1189

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Tyr | Cys | Asp | Glu | Ser | Arg | Leu | Ser | Asn | Leu | Leu | Arg | Arg | Ile |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Glu | Xaa | Asp | Arg | Asp | Xaa | Arg | Leu | Xaa | Thr | Val | Lys | Gln | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Phe | Ile | Gln | Gln | Pro | Glu | Asn | Lys | Leu | Val | Leu | Val | Lys | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asp | Ile | Leu | Ala | Ala | Xaa | His | Asp | Val | Leu | Asn | Glu | Ser | Ser | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Gln | Glu | Leu | Arg | Gln | Glu | Gly | Ala | Cys | Cys | Leu | Gly | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ala | Ser | Leu | Ser | Tyr | Glu | Ala | Glu | Lys | Ile | Phe | Lys | Trp | Ile | Phe |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Phe | Ser | Ser | Ser | Ala | Lys | Asp | Glu | Val | Lys | Leu | Leu | Tyr | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ala | Thr | Tyr | Lys | Ala | Leu | Glu | Thr | Val | Gly | Glu | Lys | Lys | Ala | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Val | Met | Gln | Leu | Val | Met | Thr | Ser | Leu | Gln | Ser | Ile | Leu | Glu |
| | | 130 | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Asp | Thr | Pro | Glu | Leu | Leu | Cys | Lys | Cys | Val | Lys | Cys | Ile | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ala | Arg | Cys | Tyr | Pro | His | Ile | Phe | Ser | Xaa | Asn | Phe | Arg | Asp |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Asp | Ile | Leu | Val | Gly | Trp | His | Arg | Asp | His | Thr | Gln | Lys | Pro |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Thr | Gln | Gln | Val | Ser | Gly | Trp | Leu | Gln | Ser | Leu | Glu | Pro | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |

1208

Trp Val Ala Asp Leu Ala Phe Pro Thr Thr Leu Leu Gly Gln Phe Leu
 210 215 220
 Glu Asp Met Glu Ala Tyr Ala Glu Asp Leu Ser His Val Ala Ser Gly
 225 230 235 240
 Glu Ser Val Asp Glu Asp Val Pro Pro Pro Ser Val Ser Xaa Pro Lys
 245 250 255
 Leu Ala Ala Leu Leu Arg Val Phe Ser Thr Val Val Arg Ser Xaa Gly
 260 265 270
 Glu Xaa Xaa Ser Pro Ile Arg Xaa Leu Gln Leu Leu Arg His Thr
 275 280 285

<210> 1190
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 1190
 Arg Pro Pro Ser Arg Trp Ser Trp Trp Gln Gly Lys Pro Thr Gly Gly
 1 5 10 15
 Val Cys Val Ala Ala Ala Arg Ser Ser Pro Ser Val Thr Ala Pro Thr
 20 25 30
 Ser Ser Asn Ala Leu Ala Tyr Leu His Ser Ser Ser Arg Pro Lys Arg
 35 40 45
 Pro Ala Trp Trp His Ser Val Pro Ala Arg Pro Leu Arg Gly Pro Arg
 50 55 60
 Thr Ala Met Ala Pro Thr Gly Val Ser Ala Cys Arg Arg Gln Lys Trp
 65 70 75 80
 Ala Pro His Ser Glu Gly Ala Ala Ala Val Gln Pro Gln Val Ala Leu
 85 90 95
 Ala Pro Gly Leu
 100

<210> 1191
 <211> 115
 <212> PRT
 <213> Homo sapiens

1209

<400> 1191

```

Asn Asp Val Ile His Gln Tyr Val Tyr Met Tyr Phe Tyr Ile Asp Leu
 1             5             10             15

Glu Asn Thr Ala Lys Thr Phe Met Thr Ser Cys Ile Thr Ala Phe Val
          20             25             30

Tyr Ile Phe Leu Thr Val Ile Ile Pro Thr Gly Thr Leu Thr Val Ala
          35             40             45

Leu Leu Asn Val Gln Asn Leu Tyr Phe Arg Asn Asn Lys Lys Lys Asp
          50             55             60

Thr Tyr Met Phe Pro Lys Gln Trp Cys Gly Glu Cys Val Arg Lys Thr
          65             70             75             80

Asn Leu Ile Gly Ser Thr Asn Thr Lys Cys Ile Thr Asn Ala Pro Val
          85             90             95

His Val Phe Val Leu Lys Arg Val Asn Glu Asp Leu Tyr Ile Ser Ile
          100             105             110

Asn Asp Ile
          115

```

<210> 1192

<211> 415

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1192

```

Arg Ile Pro Pro Glu Ser Leu Ala Arg Glu Xaa Arg Xaa Thr Lys Ser
 1             5             10             15

Phe Ser Asn Pro Arg Arg Pro Asp Arg Gly Thr Trp Ser Leu Ser Glu
          20             25             30

Lys Phe Asn Leu Arg Asp Lys Met Gln Trp Thr Ser Leu Leu Leu Leu
          35             40             45

```

1210

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Leu | Phe | Ser | Leu | Ser | Gln | Ala | Gln | Tyr | Glu | Asp | Asp | Pro | His | 50 | 55 | 60 | |
| Trp | Trp | Phe | His | Tyr | Leu | Arg | Ser | Gln | Gln | Ser | Thr | Tyr | Tyr | Asp | Pro | 65 | 70 | 75 | 80 |
| Tyr | Asp | Pro | Tyr | Pro | Tyr | Glu | Thr | Tyr | Glu | Pro | Tyr | Pro | Tyr | Gly | Val | 85 | 90 | 95 | |
| Asp | Glu | Gly | Pro | Ala | Tyr | Thr | Tyr | Gly | Ser | Pro | Ser | Pro | Pro | Asp | Pro | 100 | 105 | 110 | |
| Arg | Asp | Cys | Pro | Gln | Glu | Cys | Asp | Cys | Pro | Pro | Asn | Phe | Pro | Thr | Ala | 115 | 120 | 125 | |
| Met | Tyr | Cys | Asp | Asn | Arg | Asn | Leu | Lys | Tyr | Leu | Pro | Phe | Val | Pro | Ser | 130 | 135 | 140 | |
| Arg | Met | Lys | Tyr | Val | Tyr | Phe | Gln | Asn | Asn | Gln | Ile | Thr | Ser | Ile | Gln | 145 | 150 | 155 | 160 |
| Glu | Gly | Val | Phe | Asp | Asn | Ala | Thr | Gly | Leu | Leu | Trp | Ile | Ala | Leu | His | 165 | 170 | 175 | |
| Gly | Asn | Gln | Ile | Thr | Ser | Asp | Lys | Val | Gly | Arg | Lys | Val | Phe | Ser | Lys | 180 | 185 | 190 | |
| Leu | Arg | His | Leu | Glu | Arg | Leu | Tyr | Leu | Asp | His | Asn | Asn | Leu | Thr | Arg | 195 | 200 | 205 | |
| Met | Pro | Gly | Pro | Leu | Pro | Arg | Ser | Leu | Arg | Glu | Leu | His | Leu | Asp | His | 210 | 215 | 220 | |
| Asn | Gln | Ile | Ser | Arg | Val | Pro | Asn | Asn | Ala | Leu | Glu | Gly | Leu | Glu | Asn | 225 | 230 | 235 | 240 |
| Leu | Thr | Ala | Leu | Tyr | Leu | Gln | His | Asn | Glu | Ile | Gln | Glu | Val | Gly | Ser | 245 | 250 | 255 | |
| Ser | Met | Arg | Gly | Leu | Arg | Ser | Leu | Ile | Leu | Leu | Asp | Leu | Ser | Tyr | Asn | 260 | 265 | 270 | |
| His | Leu | Arg | Lys | Val | Pro | Asp | Gly | Leu | Pro | Ser | Ala | Leu | Glu | Gln | Leu | 275 | 280 | 285 | |
| Tyr | Met | Glu | His | Asn | Asn | Val | Tyr | Thr | Val | Pro | Asp | Ser | Tyr | Phe | Arg | 290 | 295 | 300 | |
| Gly | Ala | Pro | Lys | Leu | Leu | Tyr | Val | Arg | Leu | Ser | His | Asn | Ser | Leu | Thr | 305 | 310 | 315 | 320 |

1211

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asn | Asn | Gly | Leu | Ala | Ser | Asn | Thr | Phe | Asn | Ser | Ser | Ser | Leu | Leu | Glu | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Leu | Asp | Leu | Ser | Tyr | Asn | Gln | Leu | Gln | Lys | Ile | Pro | Pro | Val | Asn | Thr | | |
| | | | | 340 | | | | | 345 | | | | | 350 | | | |
| Asn | Leu | Glu | Asn | Leu | Tyr | Leu | Gln | Gly | Asn | Arg | Ile | Asn | Glu | Phe | Ser | | |
| | | | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Ser | Ser | Phe | Cys | Thr | Val | Val | Asp | Val | Val | Asn | Phe | Ser | Lys | Leu | | |
| | | | | 370 | | | | | 375 | | | | | 380 | | | |
| Gln | Val | Leu | Arg | Leu | Asp | Gly | Asn | Glu | Ile | Lys | Arg | Ser | Ala | Met | Pro | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Ala | Asp | Ala | Pro | Leu | Cys | Leu | Arg | Leu | Ala | Ser | Leu | Ile | Glu | Ile | | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |

<210> 1193

<211> 620

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

$\langle 222 \rangle$ (375)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (501)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (532)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (546)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1193

Ser Ala Val Thr Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp
1 5 10 15

Ser Glu Phe Ser Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val

1212

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| | 20 | | | | | | 25 | | | | | | 30 | | | | | |
| Met | Ala | Glu | Glu | Arg | Val | Val | Met | Leu | Pro | Pro | Arg | Ala | Arg | Ser | Leu | | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | | |
| Lys | Ser | Phe | Val | Val | Thr | Ser | Val | Val | Ala | Phe | Pro | Thr | Asp | Ser | Lys | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | |
| Thr | Val | Gln | Arg | Thr | Gln | Asp | Asn | Ser | Cys | Ser | Phe | Gly | Leu | His | Ala | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Arg | Gly | Val | Glu | Leu | Met | Arg | Phe | Thr | Thr | Pro | Gly | Phe | Pro | Asp | Ser | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Pro | Tyr | Pro | Ala | His | Ala | Arg | Cys | Gln | Trp | Ala | Leu | Arg | Gly | Asp | Ala | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Asp | Ser | Val | Leu | Ser | Leu | Thr | Phe | Arg | Ser | Phe | Asp | Leu | Ala | Ser | Cys | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | |
| Asp | Glu | Arg | Gly | Ser | Asp | Leu | Val | Thr | Val | Tyr | Asn | Thr | Leu | Ser | Pro | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | |
| Met | Glu | Pro | His | Ala | Leu | Val | Gln | Leu | Cys | Gly | Thr | Tyr | Pro | Pro | Ser | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Tyr | Asn | Leu | Thr | Phe | His | Ser | Ser | Gln | Asn | Val | Leu | Leu | Ile | Thr | Leu | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | |
| Ile | Thr | Asn | Thr | Glu | Arg | Arg | His | Pro | Gly | Phe | Glu | Ala | Thr | Phe | Phe | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | |
| Gln | Leu | Pro | Arg | Met | Ser | Ser | Cys | Gly | Gly | Arg | Leu | Arg | Lys | Ala | Gln | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | |
| Gly | Thr | Phe | Asn | Ser | Pro | Tyr | Tyr | Pro | Gly | His | Tyr | Pro | Pro | Asn | Ile | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | |
| Asp | Cys | Thr | Trp | Asn | Ile | Glu | Val | Pro | Asn | Asn | Gln | His | Val | Lys | Val | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Arg | Phe | Lys | Phe | Phe | Tyr | Leu | Leu | Glu | Pro | Gly | Val | Pro | Ala | Gly | Thr | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | |
| Cys | Pro | Lys | Asp | Tyr | Val | Glu | Ile | Asn | Gly | Glu | Lys | Tyr | Cys | Gly | Glu | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | |
| Arg | Ser | Gln | Phe | Val | Val | Thr | Ser | Asn | Ser | Asn | Lys | Ile | Thr | Val | Arg | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | | |
| Phe | His | Ser | Asp | Gln | Ser | Tyr | Thr | Asp | Thr | Gly | Phe | Leu | Ala | Glu | Tyr | | | |

1213

| | | | | |
|---|-----|-----|-----|---------|
| 290 | | 295 | | 300 |
| Leu Ser Tyr Asp Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr Cys Arg | | | | |
| 305 | | 310 | | 315 320 |
| Thr Gly Arg Cys Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp Ala Asp | | | | |
| | 325 | | 330 | 335 |
| Cys Thr Asp His Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala Gly His | | | | |
| | 340 | | 345 | 350 |
| Gln Phe Thr Cys Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp Val Cys | | | | |
| | 355 | | 360 | 365 |
| Asp Ser Val Asn Asp Cys Xaa Asp Asn Ser Asp Glu Gln Gly Cys Ser | | | | |
| | 370 | | 375 | 380 |
| Cys Pro Ala Gln Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu Ser Lys | | | | |
| 385 | | 390 | | 395 400 |
| Ser Gln Gln Cys Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser Asp Glu | | | | |
| | 405 | | 410 | 415 |
| Ala Ser Cys Pro Lys Val Asn Val Val Thr Cys Thr Lys His Thr Tyr | | | | |
| | 420 | | 425 | 430 |
| Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp | | | | |
| | 435 | | 440 | 445 |
| Gly Lys Glu Asp Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys | | | | |
| | 450 | | 455 | 460 |
| Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly Gly Thr Asp | | | | |
| 465 | | 470 | | 475 480 |
| Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His Ala Leu Gly | | | | |
| | 485 | | 490 | 495 |
| Gln Gly Thr Ser Xaa Gly Ala Ser Leu Ile Ser Pro Asn Trp Leu Val | | | | |
| | 500 | | 505 | 510 |
| Ser Ala Ala His Cys Tyr Ile Asp Asp Arg Gly Phe Arg Tyr Ser Asp | | | | |
| | 515 | | 520 | 525 |
| Pro Thr Gln Xaa Thr Ala Phe Leu Gly Leu His Asp Gln Ser Gln Arg | | | | |
| | 530 | | 535 | 540 |
| Ser Xaa Leu Gly Cys Arg Ser Ala Gly Ser Ser Ala Ser Ser Pro Thr | | | | |
| 545 | | 550 | | 555 560 |
| Pro Ser Ser Met Thr Ser Pro Ser Thr Met Thr Ser Arg Cys Trp Ser | | | | |

3

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 565 | | | | | | | | 570 | | | | 575 | | | |
| Trp | Arg | Asn | Arg | Gln | Ser | Thr | Ala | Pro | Trp | Cys | Gly | Pro | Ser | Ala | Cys |
| 580 | | | | | | | | 585 | | | | 590 | | | |
| Arg | Thr | Pro | Pro | Met | Ser | Ser | Leu | Pro | Ala | Arg | Pro | Ser | Gly | Ser | Arg |
| 595 | | | | | | | | 600 | | | | 605 | | | |
| Ala | Gly | Asp | Thr | Pro | Ser | Met | Glu | Ala | Leu | Ala | Arg | | | | |
| 610 | | | | | | | | 615 | | | | 620 | | | |

```
<210> 1194
<211> 51
<212> PRT
<213> Homo sapiens
```

```

<400> 1194
Arg Thr Leu Cys His Leu Thr Thr Leu Asp Glu Leu Ser Cys Gln Arg
 1             5             10             15

Glu Asn Leu Met Phe Lys Glu His Phe Pro Leu Ala Asp Val Thr Ala
      20             25             30

Gly Phe Val Phe His Met Cys Phe Ser Tyr Thr His Leu Asn Ala Phe
      35             40             45

Lys His Leu
      50

```

```
<210> 1195
<211> 269
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (245)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>  
<221> SITE  
<222> (246)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

<220>
<221> SITE
<222> (257)

1215

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (266)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1195

Pro Ala Glu Asp Ala Ala Ser Leu Thr Trp Gly Val Ala Ile Arg Ala
1 5 10 15

Gly Arg Ser Trp Phe Ser Gly Pro Ala Ala Pro Ala Ala Ala Met Ser
20 25 30

Phe Phe Pro Glu Leu Tyr Phe Asn Val Asp Asn Gly Tyr Leu Glu Gly
35 40 45

Leu Val Arg Gly Leu Lys Ala Gly Val Leu Ser Gln Ala Asp Tyr Leu
50 55 60

Asn Leu Val Gln Cys Glu Thr Leu Glu Asp Leu Lys Leu His Leu Gln
65 70 75 80

Ser Thr Asp Tyr Gly Asn Phe Leu Ala Asn Glu Ala Ser Pro Leu Thr
85 90 95

Val Ser Val Ile Asp Asp Arg Leu Lys Glu Lys Met Val Val Glu Phe
100 105 110

Arg His Met Arg Asn His Ala Tyr Glu Pro Leu Ala Ser Phe Leu Asp
115 120 125

Phe Ile Thr Tyr Ser Tyr Met Ile Asp Asn Val Ile Leu Leu Ile Thr
130 135 140

Gly Thr Leu His Gln Arg Ser Ile Ala Glu Leu Val Pro Lys Cys His
145 150 155 160

Pro Leu Gly Ser Phe Glu Gln Met Glu Ala Val Asn Ile Ala Gln Thr
165 170 175

Pro Ala Glu Leu Tyr Asn Ala Ile Leu Val Asp Thr Pro Leu Ala Ala
180 185 190

Phe Phe Gln Asp Cys Ile Ser Glu Gln Asp Leu Asp Glu Met Asn Ile
195 200 205

Glu Ile Ile Arg Asn Thr Leu Tyr Lys Ala Tyr Leu Glu Ser Phe Tyr
210 215 220

Lys Phe Cys Thr Leu Leu Gly Gly Thr Thr Ala Asp Ala Met Cys Pro

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Leu | Glu | Phe | Xaa | Xaa | Gln | Thr | Val | Pro | Ser | Ser | Phe | His | Thr | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Xaa | Gly | Ser | Thr | Leu | Arg | Ala | Trp | Arg | Xaa | Gly | Ser | Gly | | | |
| | | | 260 | | | | | 265 | | | | | | | |

```

<400> 1196
Arg His Glu Pro Ala Pro Arg Glu Ala Pro Gly Ser Arg Ala Ser Ala
  1              5              10              15

Phe Leu Leu Pro Ser Phe Leu Pro Gly Pro Arg Leu Val Pro Ala Gly
      20              25              30

His Pro Thr Ala Thr Met Phe Val Pro Cys Gly Glu Ser Ala Pro Asp
      35              40              45

Leu Ala Gly Phe Thr Leu Leu Met Pro Ala Val Ser Val Gly Asn Val
      50              55              60

Gly Gln Leu Ala Met Asp Leu Ile Ile Ser Thr Leu Asn Met Ser Lys
  65              70              75              80

Ile Gly Tyr Phe Tyr Thr Asp Cys Leu Val Pro Met Val Gly Asn Asn
      85              90              95

Pro Tyr Ala Thr Thr Glu Gly Asn Ser Thr Glu Leu Ser Ile Asn Ala
      100              105              110

Glu Val Tyr Ser Leu Pro Ser Arg Lys Leu Val Ala Leu Gln Leu Arg
      115              120              125

Ser Ile Phe Ile Lys Tyr Lys Ser Lys Pro Phe Cys Glu Lys Leu Leu
      130              135              140

Ser Trp Val Lys Ser Ser Gly Cys Ala Arg Val Ile Val Leu Ser Ser
  145              150              155              160

Ser His Ser Tyr Gln Arg Asn Asp Leu Gln Leu Arg Ser Thr Pro Phe
      165              170              175

Arg Tyr Leu Leu Thr Pro Ser Met Gln Lys Ser Val Gln Asn Lys Ile
      180              185              190

```

1217

Lys Ser Leu Asn Trp Glu Glu Met Glu Lys Ser Arg Cys Ile Pro Glu
 195 200 205

Ile Asp Asp Ser Glu Phe Cys Ile Arg Ile Pro Gly Gly Gly Ile Thr
 210 215 220

Lys Thr Leu Tyr Asp Glu Ser Cys Ser Lys Glu Ile Gln Met Ala Val
 225 230 235 240

Leu Leu Lys Phe Val Ser Glu Gly Asp Asn Ile Pro Asp Ala Leu Gly
 245 250 255

Leu Val Glu Tyr Leu Asn Glu Trp Leu Gln Ile Leu Lys Pro Leu Ser
 260 265 270

Asp Asp Pro Thr Val Ser Ala Ser Arg Trp Lys Ile Pro Ser Ser Trp
 275 280 285

Arg Leu Leu Phe Gly Ser Gly Leu Pro Pro Ala Leu Phe
 290 295 300

<210> 1197

<211> 246

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1197

Gly Thr Arg Asp Leu Leu Leu Ala Ala Ala Ala Thr Gly Lys Leu
 1 5 10 15

Lys Ser Phe Ala Arg Lys Phe Ile Asn Leu Asn Glu Phe Thr Thr Tyr
 20 25 30

1218

Gly Ser Glu Glu Ser Thr Lys Pro Ala Ser Val Arg Ala Leu Leu Phe
 35 40 45
 Xaa Ile Ser Phe Leu Met Leu Cys His Val Ala Gln Thr Tyr Gly Ser
 50 55 60
 Xaa Val Ile Leu Ser Glu Ser Arg Thr Gly Ala Glu Val Pro Phe Phe
 65 70 75 80
 Glu Thr Trp Met Gln Thr Cys Met Pro Glu Glu Gly Lys Ile Leu Asn
 85 90 95
 Pro Asp His Pro Cys Phe Arg Pro Asp Ser Thr Lys Val Glu Ser Leu
 100 105 110
 Val Ala Leu Leu Asn Asn Ser Ser Glu Met Lys Leu Val Gln Met Lys
 115 120 125
 Trp His Glu Ala Cys Leu Ser Ile Ser Ala Ala Ile Leu Glu Ile Leu
 130 135 140
 Asn Ala Trp Glu Asn Gly Val Leu Ala Phe Glu Ser Ile Gln Lys Ile
 145 150 155 160
 Thr Asp Asn Ile Lys Gly Lys Val Cys Ser Leu Ala Val Cys Ala Val
 165 170 175
 Ala Trp Leu Val Ala His Val Arg Met Leu Gly Leu Asp Glu Arg Glu
 180 185 190
 Lys Ser Leu Gln Met Ile Arg Gln Leu Ala Gly Pro Leu Phe Ser Glu
 195 200 205
 Asn Thr Leu Gln Phe Tyr Asn Glu Arg Val Val Ile Met Asn Ser Ile
 210 215 220
 Leu Gly Ala His Val Xaa Arg Arg Ala Ala Ala Asp Ser His Ala Gly
 225 230 235 240
 Phe Lys Phe Pro Ser Asn
 245

<210> 1198

<211> 465

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1219

<222> (203)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (460)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (461)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1198

Lys Asn Met Glu Thr Glu Gln Pro Glu Glu Thr Phe Pro Asn Thr Glu
 1 5 10 15

Thr Asn Gly Glu Phe Gly Lys Arg Pro Ala Glu Asp Met Glu Glu Glu
 20 25 30

Gln Ala Phe Lys Arg Ser Arg Asn Thr Asp Glu Met Val Glu Leu Arg
 35 40 45

Ile Leu Leu Gln Ser Lys Asn Ala Gly Ala Val Ile Gly Lys Gly Gly
 50 55 60

Lys Asn Ile Lys Ala Leu Arg Thr Asp Tyr Asn Ala Ser Val Ser Val
 65 70 75 80

Pro Asp Ser Ser Gly Pro Glu Arg Ile Leu Ser Ile Ser Ala Asp Ile
 85 90 95

Glu Thr Ile Gly Glu Ile Leu Lys Lys Ile Ile Pro Thr Leu Glu Glu
 100 105 110

Gly Leu Gln Leu Pro Ser Pro Thr Ala Thr Ser Gln Leu Pro Leu Glu
 115 120 125

Ser Asp Ala Val Glu Cys Leu Asn Tyr Gln His Tyr Lys Gly Ser Asp
 130 135 140

Phe Asp Cys Glu Leu Arg Leu Leu Ile His Gln Ser Leu Ala Gly Gly
 145 150 155 160

Ile Ile Gly Val Lys Gly Ala Lys Ile Lys Glu Leu Arg Glu Asn Thr
 165 170 175

Gln Thr Thr Ile Lys Leu Phe Gln Glu Cys Cys Pro His Ser Thr Asp
 180 185 190

Arg Val Val Leu Ile Gly Gly Lys Pro Asp Xaa Val Val Glu Cys Ile

1220

| | | |
|---|-----|---------|
| 195 | 200 | 205 |
| Lys Ile Ile Leu Asp Leu Ile Ser Glu Ser Pro Ile Lys Gly Arg Ala | | |
| 210 | 215 | 220 |
| Gln Pro Tyr Asp Pro Asn Phe Tyr Asp Glu Thr Tyr Asp Tyr Gly Gly | | |
| 225 | 230 | 235 240 |
| Phe Thr Met Met Phe Asp Asp Arg Arg Gly Arg Pro Val Gly Phe Pro | | |
| | 245 | 250 255 |
| Met Arg Gly Arg Gly Gly Phe Asp Arg Met Pro Pro Gly Arg Gly Gly | | |
| | 260 | 265 270 |
| Arg Pro Met Pro Pro Ser Arg Arg Asp Tyr Asp Asp Met Ser Pro Arg | | |
| | 275 | 280 285 |
| Arg Gly Pro Pro Pro Pro Pro Pro Gly Arg Gly Gly Arg Gly Gly Ser | | |
| | 290 | 295 300 |
| Arg Ala Arg Asn Leu Pro Leu Pro Pro Pro Pro Pro Pro Arg Gly Gly | | |
| 305 | 310 | 315 320 |
| Asp Leu Met Ala Tyr Asp Arg Arg Gly Arg Pro Gly Asp Arg Tyr Asp | | |
| | 325 | 330 335 |
| Gly Met Val Gly Phe Ser Ala Asp Glu Thr Trp Asp Ser Ala Ile Asp | | |
| | 340 | 345 350 |
| Thr Trp Ser Pro Ser Glu Trp Gln Met Ala Tyr Glu Pro Gln Gly Gly | | |
| | 355 | 360 365 |
| Ser Gly Tyr Asp Tyr Ser Tyr Ala Gly Gly Arg Gly Ser Tyr Gly Asp | | |
| | 370 | 375 380 |
| Leu Gly Gly Pro Ile Ile Thr Thr Gln Val Thr Ile Pro Lys Asp Leu | | |
| 385 | 390 | 395 400 |
| Ala Gly Ser Ile Ile Gly Lys Gly Gly Gln Arg Ile Lys Gln Ile Arg | | |
| | 405 | 410 415 |
| His Glu Ser Gly Ala Ser Ile Lys Ile Asp Glu Pro Leu Glu Gly Ser | | |
| | 420 | 425 430 |
| Glu Asp Arg Ile Ile Thr Ile Thr Gly Thr Gln Asp Gln Ile Gln Asn | | |
| | 435 | 440 445 |
| Ala Gln Tyr Leu Leu Gln Asn Ser Val Ser Ser Xaa Xaa Leu Ala Leu | | |
| 450 | 455 | 460 |

Cys

1221

465

<210> 1199

<211> 446

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1199

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Ala | Ala | Cys | Xaa | Thr | Gly | Pro | Glu | Phe | Pro | Gly | Arg | Pro | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | His | Glu | Met | Asp | Gln | Tyr | Trp | Gly | Ile | Gly | Ser | Leu | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Asn | Leu | Phe | Thr | Asn | Ser | Phe | Glu | Gly | Pro | Val | Leu | Asp | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Tyr | Tyr | Ala | Gly | Gly | Cys | Ser | Pro | His | Tyr | Ile | Leu | Asn | Thr | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Lys | Pro | Tyr | Asn | Val | Glu | Ser | Tyr | Thr | Pro | Gln | Thr | Gln | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Tyr | Glu | Phe | Ile | Leu | Xaa | Xaa | Tyr | Glu | Ser | Tyr | Ser | Asp | Phe | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Val | Thr | Glu | Lys | Met | Ala | Ser | Lys | Ser | Gly | Phe | Ser | Phe | Gly |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Lys | Ile | Pro | Gly | Ile | Phe | Glu | Leu | Gly | Ile | Ser | Ser | Gln | Ser | Asp |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Lys | His | Tyr | Ile | Arg | Arg | Thr | Lys | Arg | Phe | Ser | His | Thr | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1222

| | | | |
|---|-----|-----|-----|
| Ser Val Phe Leu His Ala Arg Ser Asp Leu Glu Val Ala His Tyr Lys | | | |
| 145 | 150 | 155 | 160 |
| Leu Lys Pro Arg Ser Leu Met Leu His Tyr Glu Phe Leu Gln Arg Val | | | |
| | 165 | 170 | 175 |
| Lys Arg Leu Pro Leu Glu Tyr Ser Tyr Gly Glu Tyr Arg Asp Leu Phe | | | |
| | 180 | 185 | 190 |
| Arg Asp Phe Gly Thr His Tyr Ile Thr Glu Ala Val Leu Gly Gly Ile | | | |
| | 195 | 200 | 205 |
| Tyr Glu Tyr Thr Leu Val Met Asn Lys Glu Ala Met Glu Arg Gly Asp | | | |
| | 210 | 215 | 220 |
| Tyr Thr Leu Asn Asn Val His Ala Cys Ala Lys Asn Asp Phe Lys Ile | | | |
| 225 | 230 | 235 | 240 |
| Gly Gly Ala Ile Glu Glu Val Tyr Val Ser Leu Gly Val Ser Val Gly | | | |
| | 245 | 250 | 255 |
| Lys Cys Arg Gly Ile Leu Asn Glu Ile Lys Asp Arg Asn Lys Arg Asp | | | |
| | 260 | 265 | 270 |
| Thr Met Val Glu Asp Leu Val Val Leu Val Arg Gly Gly Ala Ser Glu | | | |
| | 275 | 280 | 285 |
| His Ile Thr Thr Leu Ala Tyr Gln Glu Leu Pro Thr Ala Asp Leu Met | | | |
| | 290 | 295 | 300 |
| Gln Glu Trp Gly Asp Ala Val Gln Tyr Asn Pro Ala Ile Ile Lys Val | | | |
| 305 | 310 | 315 | 320 |
| Lys Val Glu Pro Leu Tyr Glu Leu Val Thr Ala Thr Asp Phe Ala Tyr | | | |
| | 325 | 330 | 335 |
| Ser Ser Thr Val Arg Gln Asn Met Lys Gln Ala Leu Glu Glu Phe Gln | | | |
| | 340 | 345 | 350 |
| Lys Glu Val Ser Ser Cys His Cys Ala Pro Cys Gln Gly Asn Gly Val | | | |
| | 355 | 360 | 365 |
| Pro Val Leu Lys Gly Ser Arg Cys Asp Cys Ile Cys Pro Val Gly Ser | | | |
| | 370 | 375 | 380 |
| Gln Gly Leu Ala Cys Glu Val Ser Tyr Arg Lys Asn Thr Pro Ile Asp | | | |
| 385 | 390 | 395 | 400 |
| Gly Lys Trp Asn Cys Trp Ser Asn Trp Ser Ser Cys Ser Gly Arg Arg | | | |
| | 405 | 410 | 415 |

1223

Lys Thr Arg Gln Arg Gln Cys Asn Asn Pro Pro Pro Gln Asn Gly Gly
 420 425 430

Ser Pro Cys Ser Gly Pro Ala Ser Glu Thr Leu Asp Cys Ser
 435 440 445

<210> 1200

<211> 437

<212> PRT

<213> Homo sapiens

<400> 1200

Leu Gly Ser Ser Asp Ser Tyr Ala Ser Pro Gly Arg Ala Ala Ala Pro
 1 5 10 15

Pro Ala Ala Ala Gly Pro Gly Asp Thr Ser Ala Cys Tyr Lys Ser Ser
 20 25 30

Gly Pro Arg Cys Leu Leu Pro Asp Leu Ala Pro Ser Ser Glu Pro Gly
 35 40 45

Ala Cys Leu Gly Gly Leu Ser Val Phe Thr Met Glu Gln Leu Ser Ser
 50 55 60

Ala Asn Thr Arg Phe Ala Leu Asp Leu Phe Leu Ala Leu Ser Glu Asn
 65 70 75 80

Asn Pro Ala Gly Asn Ile Phe Ile Ser Pro Phe Ser Ile Ser Ser Ala
 85 90 95

Met Ala Met Val Phe Leu Gly Thr Arg Gly Asn Thr Ala Ala Gln Leu
 100 105 110

Ser Lys Thr Phe His Phe Asn Thr Val Glu Glu Val His Ser Arg Phe
 115 120 125

Gln Ser Leu Asn Ala Asp Ile Asn Lys Arg Gly Ala Ser Tyr Ile Leu
 130 135 140

Lys Leu Ala Asn Arg Leu Tyr Gly Glu Lys Thr Tyr Asn Phe Leu Pro
 145 150 155 160

Glu Phe Leu Val Ser Thr Gln Lys Thr Tyr Gly Ala Asp Leu Ala Ser
 165 170 175

Val Asp Phe Gln His Ala Ser Glu Asp Ala Arg Lys Thr Ile Asn Gln
 180 185 190

1224

Trp Val Lys Gly Gln Thr Glu Gly Lys Ile Pro Glu Leu Leu Ala Ser
 195 200 205
 Gly Met Val Asp Asn Met Thr Lys Leu Val Leu Val Asn Ala Ile Tyr
 210 215 220
 Phe Lys Gly Asn Trp Lys Asp Lys Phe Met Lys Glu Ala Thr Thr Asn
 225 230 235 240
 Ala Pro Phe Arg Leu Asn Lys Lys Asp Arg Lys Thr Val Lys Met Met
 245 250 255
 Tyr Gln Lys Lys Lys Phe Ala Tyr Gly Tyr Ile Glu Asp Leu Lys Cys
 260 265 270
 Arg Val Leu Glu Leu Pro Tyr Gln Gly Glu Glu Leu Ser Met Val Ile
 275 280 285
 Leu Leu Pro Asp Asp Ile Glu Asp Glu Ser Thr Gly Leu Lys Lys Ile
 290 295 300
 Glu Glu Gln Leu Thr Leu Glu Lys Leu His Glu Trp Thr Lys Pro Glu
 305 310 315 320
 Asn Leu Asp Phe Ile Glu Val Asn Val Ser Leu Pro Arg Phe Lys Leu
 325 330 335
 Glu Glu Ser Tyr Thr Leu Asn Ser Asp Leu Ala Arg Leu Gly Val Gln
 340 345 350
 Asp Leu Phe Asn Ser Ser Lys Ala Asp Leu Ser Gly Met Ser Gly Ala
 355 360 365
 Arg Asp Ile Phe Ile Ser Lys Ile Val His Lys Ser Phe Val Glu Val
 370 375 380
 Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala Thr Ala Gly Ile Ala Thr
 385 390 395 400
 Phe Cys Met Leu Met Pro Glu Glu Asn Phe Thr Ala Asp His Pro Phe
 405 410 415
 Leu Phe Phe Ile Arg His Asn Ser Ser Gly Ser Ile Leu Phe Leu Gly
 420 425 430
 Arg Phe Ser Ser Pro
 435

<210> 1201

1225

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1201

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Gly | Pro | Val | Val | Gly | Gly | Trp | Tyr | Lys | Val | Leu | Asp | Arg | Phe |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Gly | Thr | Thr | Lys | Val | Asp | Ala | Leu | Lys | Lys | Met | Leu | Leu | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Gly | Phe | Ala | Pro | Cys | Phe | Leu | Gly | Cys | Phe | Leu | Pro | Leu | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Leu | Asn | Gly | Leu | Ser | Ala | Gln | Asp | Asn | Trp | Pro | Asn | Tyr | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Ile | Leu | Met | Pro | Leu | Ser | Pro | Thr | Thr | Ile | Tyr | Gly | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Cys Xaa

<210> 1202

<211> 126

<212> PRT

<213> Homo sapiens

<400> 1202

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Arg | Ser | Ser | Ala | Arg | Arg | Gln | Pro | Phe | Arg | His | Gly | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Arg | Ala | Ala | Ala | Met | Ala | Leu | Arg | Tyr | Pro | Met | Ala | Val | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Gly | His | Lys | Val | Thr | Lys | Asn | Val | Ser | Lys | Pro | Arg | His | Ser |
| | | 35 | | | | | | 40 | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Arg | Gly | Arg | Leu | Thr | Lys | His | Thr | Lys | Phe | Val | Arg | Asp | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Glu | Val | Cys | Gly | Phe | Ala | Pro | Tyr | Glu | Arg | Arg | Ala | Met | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

1226

Leu Leu Lys Val Ser Lys Asp Lys Arg Ala Leu Lys Phe Ile Lys Lys
 85 90 95

Arg Val Gly Thr His Ile Arg Ala Lys Arg Lys Arg Glu Glu Leu Ser
 100 105 110

Asn Val Leu Ala Ala Met Arg Lys Ala Ala Ala Lys Lys Asp
 115 120 125

<210> 1203

<211> 130

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1203

Asp Trp Asn Pro Asp Leu Gln Ala Ser Ala Val Cys Ile Lys Arg Val
 1 5 10 15

Gly Glu Ser Gly Pro Leu Ala Gln Glu Pro Xaa Leu Leu Lys Glu Gly
 20 25 30

Phe Lys Ala Lys Trp Val Cys Gln Arg Cys Cys Leu Pro Phe Leu Glu
 35 40 45

Met Leu Ile Ser Leu Ser Lys Thr Glu Lys Ser Arg Cys Tyr Arg Asn
 50 55 60

Asn Leu Val Cys Cys Ile Asn Cys Ser Trp Ala Trp Ser Ser Ile Pro
 65 70 75 80

Thr Leu Arg Phe Pro Ala Ser Leu Cys Cys Pro Gly Ser His Ser Cys
 85 90 95

Arg Arg Pro Asn Pro Leu Ala Val Phe Cys Leu Lys Ile Trp Gly Ala
 100 105 110

Pro Ser Leu Ser Ser Pro Gly Asn Ser Leu Ala Glu Gly Gly Asp Pro
 115 120 125

Pro Gln
 130

1227

<210> 1204
 <211> 228
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (189)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (196)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (199)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (225)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (228)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1204
 Trp Ala Ala Phe Glu Pro Ala Thr Leu Ala Trp Lys Phe Pro Phe Gln
 1 5 10 15
 Ser Gly Phe Cys Leu Leu Leu Pro Ser Pro Ser Pro Arg Tyr Leu Phe
 20 25 30
 Thr Ser His Leu Ile Ser Leu Cys Ser Ser Val Ser Pro Thr His Ile
 35 40 45
 Ile Gly Asp Ser Gly Gly Ser Leu Thr Ser Leu Leu Ser Asn Ala Arg
 50 55 60
 Pro Ser Gly Leu Ala Ser Val Ala Ser His Ile Asp Val Thr Leu Glu
 65 70 75 80
 Leu Leu Pro Gln Arg Gly Arg Arg Asp Arg Leu Ser Pro His Leu Pro
 85 90 95
 Pro Tyr Ser Pro Leu Tyr Ser Arg Phe Asp His Leu Ser Pro Ser Ala
 100 105 110

1228

Ala Pro Ser His Phe Gly Gln Ser Gln Ala Pro Ile Arg Leu Pro Pro
 115 120 125

Pro Pro Gly Ala Pro Ser Ile Ser Leu Ser Pro Leu Pro Gln Asn Leu
 130 135 140

Cys Lys Gly Tyr Glu Arg Asp Pro Leu Pro Ser Arg Pro Pro Leu Arg
 145 150 155 160

Ala Val Arg Ser Lys Lys Gln Lys Leu Val Gly Gly Trp Leu Gly Leu
 165 170 175

Cys Pro Val Pro Arg Trp Asp Lys Leu Ala Phe Ser Xaa Ile Pro Ser
 180 185 190

Trp Val Pro Xaa Ser Phe Xaa Ala Pro Gly Ala Arg Thr His Cys Ala
 195 200 205

Val Phe Leu Phe Ser Phe Val Gly Lys Gly Thr Lys Val Phe Ala Lys
 210 215 220

Xaa Pro Val Xaa
 225

<210> 1205

<211> 270

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1205

Leu Pro Gly Ala Val Ala Ala Ser Ser Gly Ser Pro Pro Gly Ser Ala
 1 5 10 15

Leu Ala Ala Val Ala Ser Gly Gly Asp Leu Phe Pro Gly Gln Pro Val
 20 25 30

Ser Glu Leu Ile Ala Gln Leu Leu Arg Ala Glu Pro Tyr Pro Ala Ala
 35 40 45

Ala Gly Arg Phe Gly Ala Gly Gly Gly Ala Ala Gly Ala Val Leu Gly
 50 55 60

Ile Asp Asn Val Cys Glu Leu Ala Ala Arg Leu Leu Phe Ser Thr Val

1229

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Glu | Trp | Ala | Arg | His | Ala | Pro | Phe | Phe | Pro | Glu | Leu | Pro | Val | Ala | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Val | Ala | Leu | Leu | Arg | Leu | Ser | Trp | Ser | Glu | Leu | Phe | Val | Leu | Asn |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Gln | Ala | Ala | Leu | Pro | Leu | His | Thr | Ala | Pro | Leu | Leu | Ala | Xaa |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Gly | Leu | His | Ala | Ala | Pro | Met | Ala | Ala | Glu | Arg | Ala | Val | Ala | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Asp | Gln | Val | Arg | Ala | Phe | Gln | Glu | Gln | Val | Asp | Lys | Leu | Gly | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Gln | Val | Asp | Ser | Ala | Glu | Tyr | Gly | Cys | Leu | Lys | Ala | Ile | Ala | Leu |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Phe | Thr | Pro | Asp | Ala | Cys | Gly | Leu | Ser | Asp | Pro | Ala | His | Val | Glu | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Gln | Glu | Lys | Ala | Gln | Val | Ala | Leu | Thr | Glu | Tyr | Val | Arg | Ala | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Pro | Ser | Gln | Pro | Gln | Arg | Phe | Gly | Arg | Leu | Leu | Leu | Arg | Leu | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | Arg | Ala | Val | Pro | Ala | Ser | Leu | Ile | Ser | Gln | Leu | Phe | Phe | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Leu | Val | Gly | Lys | Thr | Pro | Ile | Glu | Thr | Leu | Ile | Arg | Asp | Met | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Ser | Gly | Ser | Thr | Phe | Asn | Trp | Pro | Tyr | Gly | Ser | Gly | Gln | | |
| | | | 260 | | | | | 265 | | | | | 270 | | |

<210> 1206

<211> 89

<212> PRT

<213> Homo sapiens

<400> 1206

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Phe | His | Cys | Ser | Asp | Lys | Tyr | Phe | Thr | Phe | Phe | Ser | Val | His | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Arg | Asp | Pro | Pro | Thr | Ala | Val | Thr | Ser | Lys | Cys | Ser | Cys | Ser |
| | | | 20 | | | | | 25 | | | | | | 30 | |

1230

Ile Asn Gly Val Thr Asp Thr Glu Val His Ser Trp Phe Leu Ser Arg
 35 40 45

Val Val Ile Leu Val Ser Trp Ser Leu Gly His Trp Gly Cys Thr Leu
 50 55 60

Lys Ser Pro Asn Arg Leu Ala Ile Lys Ile Asn Lys Ala Ala Ala Pro
 65 70 75 80

Phe Gln Phe Thr Phe His Leu Thr Gln
 85

<210> 1207

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1207

Cys Val Gly Lys Ala Gly Val Glu Leu Gly Cys Ser Gly Glu Gly Val
 1 5 10 15

Val Lys Lys Ala Ser Ser Arg Gly His Lys Ala Arg Phe Pro Leu Arg
 20 25 30

Ser His Lys Val Leu Ser Pro Ala Pro Gly Ala Gly Gly Val His Gly
 35 40 45

Pro Gly Phe Thr Ser Thr His Pro Ala His Pro Arg Gly Glu Gly Pro
 50 55 60

Arg Ala Pro Gly Pro Ala Ala Asp Arg Ile Leu Cys Lys Leu Cys Ser
 65 70 75 80

Val His Cys Lys Thr Pro Ala Gln Leu Ala Gly His Met Gln Thr His
 85 90 95

Leu Gly Gly Ala Ala Pro Leu Ser Arg Glu Thr Pro Pro Ser His Ser
 100 105 110

Pro Pro Ala Glu Gly Asp Pro Arg Thr His Gln Val Leu Val Arg Phe
 115 120 125

Val Gln Trp Arg Arg Gln Arg Gln Xaa Arg Gln Arg Gln Gln Arg Gln

1231

130 135 140
 Gln
 145

 <210> 1208
 <211> 378
 <212> PRT
 <213> Homo sapiens

 <400> 1208
 Ser Ala Ser Arg Ala Thr Ala Met Ser Ser Arg Gly Gly Lys Lys Lys
 1 5 10 15
 Ser Thr Lys Thr Ser Arg Ser Ala Lys Ala Gly Val Ile Phe Pro Val
 20 25 30
 Gly Arg Met Leu Arg Tyr Ile Lys Lys Gly His Pro Lys Tyr Arg Ile
 35 40 45
 Gly Val Gly Ala Pro Val Tyr Met Ala Ala Val Leu Glu Tyr Leu Thr
 50 55 60
 Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys
 65 70 75 80
 Gly Arg Val Thr Pro Arg His Ile Leu Leu Ala Val Ala Asn Asp Glu
 85 90 95
 Glu Leu Asn Gln Leu Leu Lys Gly Val Thr Ile Ala Ser Gly Gly Val
 100 105 110
 Leu Pro Asn Ile His Pro Glu Leu Leu Ala Lys Lys Arg Gly Ser Lys
 115 120 125
 Gly Lys Leu Glu Ala Ile Ile Thr Pro Pro Pro Ala Lys Lys Ala Lys
 130 135 140
 Ser Pro Ser Gln Lys Lys Pro Val Ser Lys Lys Ala Gly Gly Lys Lys
 145 150 155 160
 Gly Ala Arg Lys Ser Lys Lys Gln Gly Glu Val Ser Lys Ala Ala Ser
 165 170 175
 Ala Asp Ser Thr Thr Glu Gly Thr Pro Ala Asp Gly Phe Thr Val Leu
 180 185 190
 Ser Thr Lys Ser Leu Phe Leu Gly Gln Lys Leu Asn Leu Ile His Ser
 195 200 205

1232

Glu Ile Ser Asn Leu Ala Gly Phe Glu Val Glu Ala Ile Ile Asn Pro
 210 215 220
 Thr Asn Ala Asp Ile Asp Leu Lys Asp Asp Leu Gly Asn Thr Leu Glu
 225 230 235 240
 Lys Lys Gly Gly Lys Glu Phe Val Glu Ala Val Leu Glu Leu Arg Lys
 245 250 255
 Lys Asn Gly Pro Leu Glu Val Ala Gly Ala Ala Val Ser Ala Gly His
 260 265 270
 Gly Leu Pro Ala Lys Phe Val Ile His Cys Asn Ser Pro Val Trp Gly
 275 280 285
 Ala Asp Lys Cys Glu Glu Leu Leu Glu Lys Thr Val Lys Asn Cys Leu
 290 295 300
 Ala Leu Ala Asp Asp Lys Lys Leu Lys Ser Ile Ala Phe Pro Ser Ile
 305 310 315 320
 Gly Ser Gly Arg Asn Gly Phe Pro Lys Gln Thr Ala Ala Gln Leu Ile
 325 330 335
 Leu Lys Ala Ile Ser Ser Tyr Phe Val Ser Thr Met Ser Ser Ser Ile
 340 345 350
 Lys Thr Val Tyr Phe Val Leu Phe Asp Ser Glu Ser Ile Gly Ile Tyr
 355 360 365
 Val Gln Glu Met Ala Lys Leu Asp Ala Asn
 370 375

<210> 1209

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

1233

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1209

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Gly | Lys | Ile | Xaa | Asp | Thr | Phe | Xaa | Arg | Tyr | Ala | Arg | Arg | Tyr | 1 | 5 | 10 | 15 |
| Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr | His | Ala | Xaa | Ala | Pro | Gly | Ala | Met | 20 | 25 | 30 | |
| Arg | Leu | Ser | Leu | Pro | Leu | Leu | Leu | Leu | Leu | Gly | Ala | Trp | Ala | Ile | | 35 | 40 | 45 | |
| Pro | Gly | Gly | Leu | Gly | Asp | Arg | Ala | Pro | Leu | Thr | Ala | Thr | Ala | Pro | Gln | 50 | 55 | 60 | |
| Leu | Asp | Asp | Glu | Glu | Met | Tyr | Ser | Ala | His | Met | Pro | Ala | His | Leu | Arg | 65 | 70 | 75 | 80 |
| Cys | Asp | Ala | Cys | Arg | Ala | Val | Ala | Tyr | Gln | Met | Trp | Gln | Asn | Leu | Ala | 85 | 90 | 95 | |
| Lys | Ala | Glu | Thr | Lys | Leu | His | Thr | Ser | Asn | Ser | Gly | Gly | Arg | Arg | Glu | 100 | 105 | 110 | |
| Leu | Ser | Glu | Leu | Val | Tyr | Thr | Asp | Val | Leu | Asp | Arg | Ser | Cys | Ser | Arg | 115 | 120 | 125 | |
| Asn | Trp | Gln | Asp | Tyr | Gly | Val | Arg | Glu | Val | Asp | Gln | Val | Lys | Arg | Leu | 130 | 135 | 140 | |
| Thr | Gly | Pro | Gly | Leu | Ser | Glu | Gly | Pro | Glu | Pro | Ser | Ile | Ser | Val | Met | 145 | 150 | 155 | 160 |
| Val | Thr | Gly | Gly | Pro | Trp | Pro | Thr | Arg | Leu | Ser | Arg | Thr | Cys | Leu | His | 165 | 170 | 175 | |
| Tyr | Leu | Gly | Glu | Phe | Gly | Glu | Asp | Gln | Ile | Tyr | Glu | Ala | His | Gln | Gln | 180 | 185 | 190 | |
| Gly | Arg | Gly | Ala | Leu | Glu | Ala | Leu | Leu | Cys | Gly | Gly | Pro | Gln | Gly | Ala | 195 | 200 | 205 | |
| Cys | Ser | Glu | Lys | Val | Ser | Ala | Thr | Arg | Glu | Glu | Leu | | | | | 210 | 215 | 220 | |

<210> 1210

1234

$\langle 211 \rangle$ 231

<212> PRT

<213> Homo sapiens

<400> 1210

Ala Leu Ser Pro Ala Met Val Val Pro Glu Asp Gln Leu Thr Arg Trp
1 5 10 15

His Pro Arg Phe Asn Val Asp Glu Val Pro Asp Ile Glu Pro Ala Ala
20 25 30

Leu Pro Gln Pro Pro Ala Thr Glu Lys Leu Thr Thr Ala Gln Glu Val
35 40 45

Leu Ala Arg Ala Arg Asn Leu Ile Ser Pro Arg Met Glu Lys Ala Leu
50 55 60

Ser Gln Leu Ala Leu Arg Ser Ala Ala Pro Ser Ser Pro Gly Ser Pro
65 70 75 80

Arg Pro Ala Leu Pro Ala Thr Pro Pro Ala Thr Pro Pro Ala Ala Ser
85 90 95

Pro Ser Ala Leu Lys Gly Val Ser Gln Asp Leu Leu Glu Arg Ile Arg
100 105 110

Ala Lys Glu Ala Gln Lys Gln Leu Ala Gln Met Thr Arg Cys Pro Glu
115 120 125

Gln Glu Gln Arg Leu Gln Arg Leu Glu Arg Leu Pro Glu Leu Ala Arg
130 135 140

Val Leu Arg Ser Val Phe Val Ser Glu Arg Lys Pro Ala Leu Ser Met
145 150 155 160

Glu Val Ala Cys Ala Arg Met Val Gly Ser Cys Cys Thr Ile Met Ser
165 170 175

Pro Gly Glu Met Glu Lys His Leu Leu Leu Leu Ser Glu Leu Leu Pro
180 185 190

Asp Trp Leu Ser Leu His Arg Ile Arg Thr Asp Thr Tyr Val Lys Leu
195 200 205

Asp Lys Ala Ala Asp Leu Ala His Ile Thr Ala Arg Leu Ala His Gln
210 215 220

Thr Arg Ala Glu Glu Gly Leu
225 230

1235

<210> 1211

<211> 346

<212> PRT

<213> Homo sapiens

<400> 1211

```

Asn Cys Thr Thr Ile Ser Leu Val Tyr Leu His Phe Val Phe Tyr Asn
 1             5             10             15

Ser Tyr Ser Leu Phe Pro Ser Lys Glu Asn Cys Val Tyr Glu Thr Val
          20             25             30

Val Leu Pro Leu Asp Glu Arg Ala Phe Glu Lys Thr Leu Thr Pro Ile
          35             40             45

Ile Gln Glu Tyr Phe Glu His Gly Asp Thr Asn Glu Val Ala Glu Met
          50             55             60

Leu Arg Asp Leu Asn Leu Gly Glu Met Lys Ser Gly Val Pro Val Leu
          65             70             75             80

Ala Val Ser Leu Ala Leu Glu Gly Lys Ala Ser His Arg Glu Met Thr
          85             90             95

Ser Lys Leu Leu Ser Asp Leu Cys Gly Thr Val Met Ser Thr Thr Asp
          100             105             110

Val Glu Lys Ser Phe Asp Lys Leu Leu Lys Asp Leu Pro Glu Leu Ala
          115             120             125

Leu Asp Thr Pro Arg Ala Pro Gln Leu Val Gly Gln Phe Ile Ala Arg
          130             135             140

Ala Val Gly Asp Gly Ile Leu Cys Asn Thr Tyr Ile Asp Ser Tyr Lys
          145             150             155             160

Gly Thr Val Asp Cys Val Gln Ala Arg Ala Ala Leu Asp Lys Ala Thr
          165             170             175

Val Leu Leu Ser Met Ser Lys Gly Gly Lys Arg Lys Asp Ser Val Trp
          180             185             190

Gly Ser Gly Gly Gly Gln Gln Ser Val Asn His Leu Val Lys Glu Ile
          195             200             205

Asp Met Leu Leu Lys Glu Tyr Leu Leu Ser Gly Asp Ile Ser Glu Ala
          210             215             220

Glu His Cys Leu Lys Glu Leu Glu Val Pro His Phe His His Glu Leu
          225             230             235             240

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| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Val | Tyr | Glu | Ala | Ile | Ile | Met | Val | Leu | Glu | Ser | Thr | Gly | Glu | Ser | Thr | |
| | | | | 245 | | | 250 | | | | 255 | | | | | |
| Phe | Lys | Met | Ile | Leu | Asp | Leu | Leu | Lys | Ser | Leu | Trp | Lys | Ser | Ser | Thr | |
| | | | | 260 | | | 265 | | | | 270 | | | | | |
| Ile | Thr | Val | Asp | Gln | Met | Lys | Arg | Gly | Tyr | Glu | Arg | Ile | Tyr | Asn | Glu | |
| | | | | 275 | | | 280 | | | | 285 | | | | | |
| Ile | Pro | Asp | Ile | Asn | Leu | Asp | Val | Pro | His | Ser | Tyr | Ser | Val | Leu | Glu | |
| | | | | 290 | | | 295 | | | | 300 | | | | | |
| Arg | Phe | Val | Glu | Glu | Cys | Phe | Gln | Ala | Gly | Ile | Ile | Ser | Lys | Gln | Leu | |
| 305 | | | | | 310 | | | 315 | | | | 320 | | | | |
| Arg | Asp | Leu | Cys | Pro | Ser | Arg | Gly | Arg | Lys | Arg | Phe | Val | Ser | Glu | Gly | |
| | | | | 325 | | | 330 | | | | 335 | | | | | |
| Asp | Gly | Gly | Arg | Leu | Lys | Pro | Glu | Ser | Tyr | | | | | | | |
| | | | | 340 | | | 345 | | | | | | | | | |

Ile Met Tyr Asn Gly Gln Pro Ile Thr Lys Met Ala Cys Gly Xaa Glu
50 55 60

1237

Phe Ser Met Ile Met Asp Cys Lys Gly Asn Leu Tyr Ser Phe Gly Cys
 65 70 75 80
 Pro Glu Tyr Gly Gln Leu Gly His Asn Ser Asp Gly Lys Phe Ile Ala
 85 90 95
 Arg Ala Gln Arg Ile Glu Tyr Asp Cys Glu Leu Val Pro Arg Arg Val
 100 105 110
 Ala Ile Phe Ile Glu Lys Thr Lys Asp Gly Gln Ile Leu Pro Val Pro
 115 120 125
 Asn Val Val Val Arg Asp Val Ala Cys Gly Ala Asn His Thr Leu Val
 130 135 140
 Leu Asp Ser Gln Lys Arg Val Phe Ser Trp Gly Phe Gly Gly Tyr Gly
 145 150 155 160
 Arg Leu Gly Thr Gln Ser Arg Arg Met Arg Trp Ser Pro Ala Trp
 165 170 175

<210> 1213

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1213

Cys Phe Ile Cys Val Trp Cys Lys Arg Lys Leu Asp Gln Ile Asn Leu
 1 5 10 15
 Gln Leu Met Ser Pro Asn Ala Asn Thr Gly Thr His Met His Thr Pro
 20 25 30
 Ile Asn Thr His Thr Val His Leu Xaa Lys Gly Gln Val Ile Ser His
 35 40 45
 Pro Asn Phe Thr Ser Thr Asp Pro Leu Ala Pro Thr Pro Ala Ser Thr
 50 55 60
 Val Thr Ser Lys Ala Arg Ala Thr Cys Ala His Gln Thr Cys Ile Lys
 65 70 75 80
 Gln Leu Ala Gly Asp Gly Cys Gly Ala Gly Gly Leu Ser Asp Gly Ser

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Leu | Leu | Pro | Leu | Leu | Arg | Val | Lys | Leu | Leu | Ser | Phe | Leu | Arg | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Leu | Cys | Gln | Val | Cys | Ala | Phe | Asn | Cys | Phe | Tyr | Phe | Val | Phe | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

```
<400> 1214
Cys Thr Trp Asn Arg Cys Ser Ala Ser Pro Ala Gly Trp Gln Asn Ser
   1                               5                10              15
Phe Leu Gly His Leu Asn Pro Ser Ser Leu Leu Gln Asn Pro Pro Ala
      20                      25                  30
Asn Arg Ile Gly Met Gly Ala Thr Leu Asp Ile Gln Arg Gln Gln Arg
      35                      40                  45
Met Glu Leu Leu Asp Arg Gln Leu Met Phe Ser Gln Phe Ala Gln Gly
      50                      55                  60
Arg Arg Gln Arg Gln Gln Gln Gly Gly Met Ile Asn Trp Asn Arg Leu
      65                      70                  75                  80
Phe Pro Pro Leu Arg Gln Arg Gln Asn Val Asn Tyr Gln Gly Gly Arg
      85                      90                  95
Gln Ser Glu Pro Ala Ala Pro Pro Leu Glu Val Ser Glu Glu Gln Val
      100                     105                   110
Ala Arg Leu Met Glu Met Gly Phe Ser Arg Gly Asp Ala Leu Glu Ala
      115                     120                   125
Leu Arg Ala Ser Asn Asn Asp Leu Asn Val Ala Thr Asn Phe Leu Leu
      130                     135                   140
Gln His
145
```

| | |
|-------|------|
| <210> | 1215 |
| <211> | 116 |
| <212> | PRT |

1239

<213> Homo sapiens

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1215

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Asn | His | Gln | Lys | Thr | His | Thr | Ser | Glu | Lys | Ser | Tyr | Lys | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Glu | Cys | Arg | Lys | Ala | Phe | Ser | Tyr | Cys | Ser | Gly | Leu | Ile | Gln | Cys |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Val | Ile | His | Thr | Ile | Glu | Lys | Pro | Tyr | Glu | Tyr | Gly | Lys | Cys | Gly |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ala | Phe | Arg | Gln | Arg | Thr | Asp | Leu | Lys | Lys | His | Gln | Lys | Met | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Glu | Glu | Lys | Pro | Tyr | Glu | Cys | Asn | Glu | Cys | Gly | Lys | Ala | Phe | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Thr | Tyr | Leu | Thr | Lys | His | Gln | Lys | Ile | His | Ser | Glu | Glu | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Ile | His | Thr | Glu | Cys | Gly | Glu | Thr | Xaa | Xaa | Gln | Asn | Ser | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | |
|-----|-----|-----|-----|
| Phe | Leu | Gln | Gln |
| | | | 115 |

<210> 1216

<211> 201

<212> PRT

<213> Homo sapiens

<400> 1216

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Gly | Gly | Glu | Gly | Phe | Gly | Ser | Leu | His | Ala | Ser | Leu | Val | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Gly | Val | Val | Ala | Gly | Cys | Ala | Arg | His | Phe | Arg | Ala | Ser | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

1240

Asn Gly Val Ala Asn Gly Leu Gln Ser Asn Met Pro Lys Phe Tyr Cys
 35 40 45
 Asp Tyr Cys Asp Thr Tyr Leu Thr His Asp Ser Pro Ser Val Arg Lys
 50 55 60
 Thr His Cys Ser Gly Arg Lys His Lys Glu Asn Val Lys Asp Tyr Tyr
 65 70 75 80
 Gln Lys Trp Met Glu Glu Gln Ala Gln Ser Leu Ile Asp Lys Thr Thr
 85 90 95
 Ala Ala Phe Gln Gln Gly Lys Ile Pro Pro Thr Pro Phe Ser Ala Pro
 100 105 110
 Pro Pro Ala Gly Ala Met Ile Pro Pro Pro Pro Ser Leu Pro Gly Pro
 115 120 125
 Pro Arg Pro Gly Met Met Pro Ala Pro His Met Gly Gly Pro Pro Met
 130 135 140
 Met Pro Met Met Gly Pro Pro Pro Pro Gly Met Met Pro Val Gly Pro
 145 150 155 160
 Ala Pro Gly Met Arg Pro Pro Met Gly Gly His Met Pro Met Met Pro
 165 170 175
 Gly Pro Pro Met Met Arg Pro Pro Ala Arg Pro Met Met Val Pro Thr
 180 185 190
 Arg Pro Gly Met Thr Arg Pro Asp Arg
 195 200

<210> 1217

<211> 473

<212> PRT

<213> Homo sapiens

<400> 1217

Lys Phe Thr Met Lys Phe Leu Leu Ile Leu Leu Leu Gln Ala Thr Ala
 1 5 10 15
 Ser Gly Ala Leu Pro Leu Asn Ser Ser Thr Ser Leu Glu Lys Asn Asn
 20 25 30
 Val Leu Phe Gly Glu Arg Tyr Leu Glu Lys Phe Tyr Gly Leu Glu Ile
 35 40 45
 Asn Lys Leu Pro Val Thr Lys Met Lys Tyr Ser Gly Asn Leu Met Lys

1241

| | | |
|---|-----|---------|
| 50 | 55 | 60 |
| Glu Lys Ile Gln Glu Met Gln His Phe Leu Gly Leu Lys Val Thr Gly | | |
| 65 | 70 | 75 80 |
| Gln Leu Asp Thr Ser Thr Leu Glu Met Met His Ala Pro Arg Cys Gly | | |
| | 85 | 90 95 |
| Val Pro Asp Val His His Phe Arg Glu Met Pro Gly Gly Pro Val Trp | | |
| | 100 | 105 110 |
| Arg Lys His Tyr Ile Thr Tyr Arg Ile Asn Asn Tyr Thr Pro Asp Met | | |
| | 115 | 120 125 |
| Asn Arg Glu Asp Val Asp Tyr Ala Ile Arg Lys Ala Phe Gln Val Trp | | |
| | 130 | 135 140 |
| Ser Asn Val Thr Pro Leu Lys Phe Ser Lys Ile Asn Thr Gly Met Ala | | |
| 145 | 150 | 155 160 |
| Asp Ile Leu Val Val Phe Ala Arg Gly Ala His Gly Asp Phe His Ala | | |
| | 165 | 170 175 |
| Phe Asp Gly Lys Gly Gly Ile Leu Ala His Ala Phe Gly Pro Gly Ser | | |
| | 180 | 185 190 |
| Gly Ile Gly Gly Asp Ala His Phe Asp Glu Asp Glu Phe Trp Thr Thr | | |
| | 195 | 200 205 |
| His Ser Gly Gly Thr Asn Leu Phe Leu Thr Ala Val His Glu Ile Gly | | |
| | 210 | 215 220 |
| His Ser Leu Gly Leu Gly His Ser Ser Asp Pro Lys Ala Val Met Phe | | |
| 225 | 230 | 235 240 |
| Pro Thr Tyr Lys Tyr Val Asp Ile Asn Thr Phe Arg Leu Ser Ala Asp | | |
| | 245 | 250 255 |
| Asp Ile Arg Gly Ile Gln Ser Leu Tyr Gly Asp Pro Lys Glu Asn Gln | | |
| | 260 | 265 270 |
| Arg Leu Pro Asn Pro Asp Asn Ser Glu Pro Ala Leu Cys Asp Pro Asn | | |
| | 275 | 280 285 |
| Leu Ser Phe Asp Ala Val Thr Thr Val Gly Asn Lys Ile Phe Phe Phe | | |
| | 290 | 295 300 |
| Lys Asp Arg Phe Phe Trp Leu Lys Val Ser Glu Arg Pro Lys Thr Ser | | |
| 305 | 310 | 315 320 |
| Val Asn Leu Ile Ser Ser Leu Trp Pro Thr Leu Pro Ser Gly Ile Glu | | |

1242

| | | | | | |
|---|-----|--|-----|--|-----|
| | 325 | | 330 | | 335 |
| Ala Ala Tyr Glu Ile Glu Ala Arg Asn Gln Val Phe Leu Phe Lys Asp | | | | | |
| | 340 | | 345 | | 350 |
| Asp Lys Tyr Trp Leu Ile Ser Asn Leu Arg Pro Glu Pro Asn Tyr Pro | | | | | |
| | 355 | | 360 | | 365 |
| Lys Ser Ile His Ser Phe Gly Phe Pro Asn Phe Val Lys Lys Ile Asp | | | | | |
| | 370 | | 375 | | 380 |
| Ala Ala Val Phe Asn Pro Arg Phe Tyr Arg Thr Tyr Phe Phe Val Asp | | | | | |
| | 385 | | 390 | | 400 |
| Asn Gln Tyr Trp Arg Tyr Asp Glu Arg Arg Gln Met Met Asp Pro Gly | | | | | |
| | 405 | | 410 | | 415 |
| Tyr Pro Lys Leu Ile Thr Lys Asn Phe Gln Gly Ile Gly Pro Lys Ile | | | | | |
| | 420 | | 425 | | 430 |
| Asp Ala Val Phe Tyr Ser Lys Asn Lys Tyr Tyr Tyr Phe Phe Gln Gly | | | | | |
| | 435 | | 440 | | 445 |
| Ser Asn Gln Phe Glu Tyr Asp Phe Leu Leu Gln Arg Ile Thr Lys Thr | | | | | |
| | 450 | | 455 | | 460 |
| Leu Lys Ser Asn Ser Trp Phe Gly Cys | | | | | |
| | 465 | | 470 | | |

<210> 1218

<211> 598

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1218

| |
|---|
| Ala Thr Ser Arg Gln Pro Ser Tyr Xaa Arg Thr Trp Cys Arg Arg Cys |
| 1 5 10 15 |

Cys Leu Pro Leu Ala Leu Asn Pro Val Pro Ala Ala Met Ala Pro Gly

1243

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 20 | | | | | | | | | | | | | | | | 25 | | | | | | | | | | | | | | | | 30 | | | | | | | | | | | | | | | |
| Gln | Leu | Ala | Leu | Phe | Ser | Val | Ser | Asp | Lys | Thr | Gly | Leu | Val | Glu | Phe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 35 | | | | 40 | | | | | | 45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ala | Arg | Asn | Leu | Thr | Ala | Leu | Gly | Leu | Asn | Leu | Val | Ala | Ser | Gly | Gly | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 50 | | | | 55 | | | | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thr | Ala | Lys | Ala | Leu | Arg | Asp | Ala | Gly | Leu | Ala | Val | Arg | Asp | Val | Ser | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 65 | | 70 | | | | | | 75 | | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Glu | Leu | Thr | Gly | Phe | Pro | Glu | Met | Leu | Gly | Gly | Arg | Val | Lys | Thr | Leu | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 85 | | | | 90 | | 95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| His | Pro | Ala | Val | His | Ala | Gly | Ile | Leu | Ala | Arg | Asn | Ile | Pro | Glu | Asp | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 100 | | | | | | 105 | | | | 110 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asn | Ala | Asp | Met | Ala | Arg | Leu | Asp | Phe | Asn | Leu | Ile | Arg | Val | Val | Ala | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 115 | | | | 120 | | | | 125 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cys | Asn | Leu | Tyr | Pro | Phe | Val | Lys | Thr | Val | Ala | Ser | Pro | Gly | Val | Xaa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 130 | | | | 135 | | | | 140 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Val | Glu | Glu | Ala | Val | Glu | Gln | Ile | Asp | Ile | Gly | Gly | Val | Thr | Leu | Leu | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 145 | | | | 150 | | | | | | 155 | | 160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arg | Ala | Ala | Ala | Lys | Asn | His | Ala | Arg | Val | Thr | Val | Val | Cys | Glu | Pro | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 165 | | | | 170 | | 175 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Glu | Asp | Tyr | Val | Val | Val | Ser | Thr | Glu | Met | Gln | Ser | Ser | Glu | Ser | Lys | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 180 | | | | | | 185 | | | | 190 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asp | Thr | Ser | Leu | Glu | Thr | Arg | Arg | Gln | Leu | Ala | Leu | Lys | Ala | Phe | Thr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 195 | | | | 200 | | | | 205 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| His | Thr | Ala | Gln | Tyr | Asp | Glu | Ala | Ile | Ser | Asp | Tyr | Phe | Arg | Lys | Gln | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 210 | | | | | | 215 | | | | 220 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tyr | Ser | Lys | Gly | Val | Ser | Gln | Met | Pro | Leu | Arg | Tyr | Gly | Met | Asn | Pro | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 225 | | | | 230 | | | | 235 | | 240 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| His | Gln | Thr | Pro | Ala | Gln | Leu | Tyr | Thr | Leu | Gln | Pro | Lys | Leu | Pro | Ile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 245 | | | | | | 250 | | | | 255 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thr | Val | Leu | Asn | Gly | Ala | Pro | Gly | Phe | Ile | Asn | Leu | Cys | Asp | Ala | Leu | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 260 | | | | 265 | | | | 270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asn | Ala | Trp | Gln | Leu | Val | Lys | Glu | Leu | Lys | Glu | Ala | Leu | Gly | Ile | Pro | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 275 | | | | 280 | | | | 285 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ala | Ala | Ala | Ser | Phe | Lys | His | Val | Ser | Pro | Ala | Gly | Ala | Ala | Val | Gly | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1244

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 290 | 295 | 300 | | | | | | | | | | | | | | | |
| Ile | Pro | Leu | Ser | Glu | Asp | Glu | Ala | Lys | Val | Cys | Met | Val | Tyr | Asp | Leu | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Tyr | Lys | Thr | Leu | Thr | Pro | Ile | Ser | Ala | Ala | Tyr | Ala | Arg | Ala | Arg | Gly | | |
| | | | | 325 | | | | | | 330 | | | | | 335 | | |
| Ala | Asp | Arg | Met | Ser | Ser | Phe | Gly | Asp | Phe | Val | Ala | Leu | Ser | Asp | Val | | |
| | | | 340 | | | | | | 345 | | | | | 350 | | | |
| Cys | Asp | Val | Pro | Thr | Ala | Lys | Ile | Ile | Ser | Arg | Glu | Val | Ser | Asp | Gly | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Ile | Ile | Ala | Pro | Gly | Tyr | Glu | Glu | Glu | Ala | Leu | Thr | Ile | Leu | Ser | Lys | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Lys | Lys | Asn | Gly | Asn | Tyr | Cys | Val | Leu | Gln | Met | Asp | Gln | Ser | Tyr | Lys | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Pro | Asp | Glu | Asn | Glu | Val | Arg | Thr | Leu | Phe | Gly | Leu | His | Leu | Ser | Gln | | |
| | | | 405 | | | | | | 410 | | | | | | 415 | | |
| Lys | Arg | Asn | Asn | Gly | Val | Val | Asp | Lys | Ser | Leu | Phe | Ser | Asn | Val | Val | | |
| | | | 420 | | | | | 425 | | | | | | 430 | | | |
| Thr | Lys | Asn | Lys | Asp | Leu | Pro | Glu | Ser | Ala | Leu | Arg | Asp | Leu | Ile | Val | | |
| | 435 | | | | | | 440 | | | | | 445 | | | | | |
| Ala | Thr | Ile | Ala | Val | Lys | Tyr | Thr | Gln | Ser | Asn | Ser | Val | Cys | Tyr | Ala | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Lys | Asn | Gly | Gln | Val | Ile | Gly | Ile | Gly | Ala | Gly | Gln | Gln | Ser | Arg | Ile | | |
| 465 | | | | 470 | | | | 475 | | | | | | | 480 | | |
| His | Cys | Thr | Arg | Leu | Ala | Gly | Asp | Lys | Ala | Asn | Tyr | Trp | Trp | Leu | Arg | | |
| | | | 485 | | | | | 490 | | | | | | 495 | | | |
| His | His | Pro | Gln | Val | Leu | Ser | Met | Lys | Phe | Lys | Thr | Gly | Val | Lys | Arg | | |
| | | 500 | | | | | | 505 | | | | | 510 | | | | |
| Ala | Glu | Ile | Ser | Asn | Ala | Ile | Asp | Gln | Tyr | Val | Thr | Gly | Thr | Ile | Gly | | |
| | 515 | | | | | | 520 | | | | | 525 | | | | | |
| Glu | Asp | Glu | Asp | Leu | Ile | Lys | Trp | Lys | Ala | Leu | Phe | Glu | Glu | Val | Pro | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Glu | Leu | Leu | Thr | Glu | Ala | Glu | Lys | Lys | Glu | Trp | Val | Glu | Lys | Leu | Thr | | |
| 545 | | | | 550 | | | | | 555 | | | | | | 560 | | |
| Glu | Val | Ser | Ile | Ser | Ser | Asp | Ala | Phe | Phe | Pro | Phe | Arg | Asp | Asn | Val | | |

[illegible]

```
<210> 1219
<211> 209
<212> PRT
<213> Homo sapiens
```

| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 1219 | | | | | | | | | | | | | | | | |
| Tyr | Thr | Ala | Ile | Met | Ser | Ile | Met | Ser | Tyr | Asn | Gly | Gly | Ala | Val | Met | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ala | Met | Lys | Gly | Lys | Asn | Cys | Val | Ala | Ile | Ala | Ala | Asp | Arg | Arg | Phe | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Gly | Ile | Gln | Ala | Gln | Met | Val | Thr | Thr | Asp | Phe | Gln | Lys | Ile | Phe | Pro | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Met | Gly | Asp | Arg | Leu | Tyr | Ile | Gly | Leu | Ala | Gly | Leu | Ala | Thr | Asp | Val | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gln | Thr | Val | Ala | Gln | Arg | Leu | Lys | Phe | Arg | Leu | Asn | Leu | Tyr | Glu | Leu | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Lys | Glu | Gly | Arg | Gln | Ile | Lys | Pro | Tyr | Thr | Leu | Met | Ser | Met | Val | Ala | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Leu | Leu | Tyr | Glu | Lys | Arg | Phe | Gly | Pro | Tyr | Tyr | Thr | Glu | Pro | Val | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ile | Ala | Gly | Leu | Asp | Pro | Lys | Thr | Phe | Lys | Pro | Phe | Ile | Cys | Ser | Leu | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Asp | Leu | Ile | Gly | Cys | Pro | Met | Val | Thr | Asp | Asp | Phe | Val | Val | Ser | Gly | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Thr | Cys | Ala | Glu | Gln | Met | Tyr | Gly | Met | Cys | Glu | Ser | Leu | Trp | Glu | Pro | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Asn | Met | Asp | Pro | Asp | His | Leu | Phe | Glu | Thr | Ile | Ser | Gln | Ala | Met | Leu | |
| | | | 165 | | | | | | 170 | | | | | 175 | | |
| Asn | Ala | Val | Asp | Arg | Asp | Ala | Val | Ser | Gly | Met | Gly | Val | Ile | Val | His | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |

1246

Ile Ile Glu Lys Asp Lys Ile Thr Thr Arg Thr Leu Lys Ala Arg Met
 195 200 205

Asp

<210> 1220
 <211> 140
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (51)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (64)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (77)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1220
 Ile Ile Ser Ile Ile Ser Thr Ser Asn Lys Ile Lys Met Ser Glu Ala
 1 5 10 15

Pro Arg Phe Phe Val Gly Pro Glu Asp Thr Glu Ile Asn Pro Gly Asn
 20 25 30

Tyr Arg His Phe Phe His His Ala Asp Glu Asp Asp Glu Glu Glu Asp
 35 40 45

Asp Ser Xaa Pro Glu Arg Gln Ile Val Val Gly Ile Cys Ser Met Xaa
 50 55 60

Lys Lys Ser Lys Ser Lys Pro Met Lys Glu Ile Leu Xaa Arg Ile Ser
 65 70 75 80

Leu Phe Lys Tyr Ile Thr Val Val Val Phe Glu Glu Glu Val Ile Leu
 85 90 95

Asn Glu Pro Val Glu Asn Trp Pro Leu Cys Asp Cys Leu Ile Ser Phe
 100 105 110

1247

His Ser Lys Gly Phe Pro Leu Asp Lys Ala Val Ala Tyr Ala Lys Leu
 115 120 125

Arg Asn Pro Phe Val Ile Asn Asp Leu Asn Met Gln
 130 135 140

<210> 1221

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1221

Gly Leu Met Glu Ile Glu Ile Thr Cys Lys Asp Ile Thr Val Phe Met
 1 5 10 15

Ser Tyr Ile Leu Val Leu Glu Ile Val Glu Cys Met Ile Asp Asn Ile
 20 25 30

Phe Leu Ile Phe Ile Phe Ser Ser Asn Thr Ser Thr Val
 35 40 45

<210> 1222

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1222

Val Ala Tyr Ile Cys Tyr Ser Lys Phe Cys Lys Tyr Ala Asn Gln Leu
 1 5 10 15

Tyr Arg Phe Ile Thr Ser Phe Leu Gly Phe Phe Trp Gly Arg Val Ile
 20 25 30

Ile Leu Leu Lys Ile Thr Met Asn Thr Leu Thr Val Arg Ile Cys Gly
 35 40 45

Lys Val Pro Leu Asn Ile Thr Lys Ile Ile Ser Leu Glu Gly Arg Asn
 50 55 60

Asn His Ser Asn Glu Leu
 65 70

<210> 1223

<211> 88

<212> PRT

1248

<213> Homo sapiens

<400> 1223

```

Phe Tyr Pro Ser Thr Tyr Leu Lys Ala Pro Ser Ser Leu Val Cys Gly
 1             5             10             15

Val Leu Glu Pro Val Ser Ser Phe Trp Arg Phe Lys Leu Asn Ser Asn
          20             25             30

Asn Tyr Val Thr Gln Ser Met Trp Arg Lys Ser Glu Thr Ser His Gly
          35             40             45

Asp Ala Gly Pro Arg Ala Arg Pro Ala Val Trp Pro Ala Leu Leu Thr
          50             55             60

Ser Val Ser Arg Ser Phe Pro Ser His Glu Val Pro Ser Gly His Gly
          65             70             75             80

Asp Glu Gly Arg Glu Gly Thr Gly
          85

```

<210> 1224

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (279)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1224

```

Ala Thr Arg Arg Arg Ala Ala Glu Ala Gly Met Ala Ala Val Leu Gln
 1             5             10             15

Arg Val Glu Arg Leu Ser Asn Arg Val Val Arg Val Leu Gly Cys Asn
          20             25             30

Pro Gly Pro Met Thr Leu Gln Gly Thr Asn Thr Tyr Leu Val Gly Thr
          35             40             45

Gly Pro Arg Arg Ile Leu Ile Asp Thr Gly Glu Pro Ala Ile Pro Glu
          50             55             60

Tyr Ile Ser Cys Leu Lys Gln Ala Leu Thr Glu Phe Asn Thr Ala Ile
          65             70             75             80

Gln Glu Ile Val Val Thr His Trp His Arg Asp His Ser Gly Gly Ile
          85             90             95

```

1249

Gly Asp Ile Cys Lys Ser Ile Asn Asn Asp Thr Thr Tyr Cys Ile Lys
 100 105 110
 Lys Leu Pro Arg Asn Pro Gln Arg Glu Glu Ile Ile Gly Asn Gly Glu
 115 120 125
 Gln Gln Tyr Val Tyr Leu Lys Asp Gly Asp Val Ile Lys Thr Glu Gly
 130 135 140
 Ala Thr Leu Arg Val Leu Tyr Thr Pro Gly His Thr Asp Asp His Met
 145 150 155 160
 Ala Leu Leu Leu Glu Glu Glu Asn Ala Ile Phe Ser Gly Asp Cys Ile
 165 170 175
 Leu Gly Glu Gly Thr Thr Val Phe Glu Asp Leu Tyr Asp Tyr Met Asn
 180 185 190
 Ser Leu Lys Glu Leu Leu Lys Ile Lys Ala Asp Ile Ile Tyr Pro Gly
 195 200 205
 His Gly Pro Val Ile His Asn Ala Glu Ala Lys Ile Gln Gln Tyr Ile
 210 215 220
 Ser His Arg Asn Ile Arg Glu Gln Gln Ile Leu Thr Leu Phe Arg Glu
 225 230 235 240
 Asn Phe Glu Lys Ser Phe Thr Val Met Glu Leu Val Lys Ile Ile Tyr
 245 250 255
 Lys Asn Thr Pro Glu Asn Leu His Glu Met Ala Lys His Asn Leu Leu
 260 265 270
 Leu His Leu Lys Lys Leu Xaa Lys Glu Gly Lys Ile Phe Ser Asn Thr
 275 280 285
 Asp Pro Asp Lys Lys Trp Lys Ala His Leu
 290 295

<210> 1225

<211> 27

<212> PRT

<213> Homo sapiens

<400> 1225

Val Ser Gly Asp Tyr Gly His Pro Val Tyr Ile Val Gln Asp Gly Pro
 1 5 10 15

1250

Pro Gln Ser Pro Pro Asn Ile Tyr Tyr Lys Val
 20 25

<210> 1226

<211> 380

<212> PRT

<213> Homo sapiens

<400> 1226

Glu Gln Glu Leu Asp Thr Leu Lys Arg Lys Ser Pro Ser Asp Leu Trp
 1 5 10 15

Lys Glu Asp Leu Ala Thr Phe Ile Glu Glu Leu Glu Ala Val Glu Ala
 20 25 30

Lys Glu Lys Gln Asp Glu Gln Val Gly Leu Pro Gly Lys Val Gly Lys
 35 40 45

Ala Lys Gly Lys Lys Thr Gln Met Ala Glu Val Leu Pro Ser Pro Arg
 50 55 60

Gly Gln Arg Val Ile Pro Arg Ile Thr Ile Glu Met Lys Ala Glu Ala
 65 70 75 80

Glu Lys Lys Asn Lys Lys Lys Ile Lys Asn Glu Asn Thr Glu Gly Ser
 85 90 95

Pro Gln Glu Asp Gly Val Glu Leu Glu Gly Leu Lys Gln Arg Leu Glu
 100 105 110

Lys Lys Gln Lys Arg Glu Pro Gly Thr Lys Thr Lys Lys Gln Thr Thr
 115 120 125

Leu Ala Phe Lys Pro Ile Lys Lys Gly Lys Lys Arg Asn Pro Trp Ser
 130 135 140

Asp Ser Glu Ser Asp Arg Ser Ser Asp Glu Ser Asn Phe Asp Val Pro
 145 150 155 160

Pro Arg Glu Thr Glu Pro Arg Arg Ala Ala Thr Lys Thr Lys Phe Thr
 165 170 175

Met Asp Leu Asp Ser Asp Glu Asp Phe Ser Asp Phe Asp Glu Lys Thr
 180 185 190

Asp Asp Glu Asp Phe Val Pro Ser Asp Ala Ser Pro Pro Lys Thr Lys
 195 200 205

Thr Ser Pro Lys Leu Ser Asn Lys Glu Leu Lys Pro Gln Lys Ser Val

1251

| | | |
|---|-----|---------|
| 210 | 215 | 220 |
| Val Ser Asp Leu Glu Ala Asp Asp Val Lys Gly Ser Val Pro Leu Ser | | |
| 225 | 230 | 235 240 |
| Ser Ser Pro Pro Ala Thr His Phe Pro Asp Glu Thr Glu Ile Thr Asn | | |
| | 245 | 250 255 |
| Pro Val Pro Lys Lys Asn Val Thr Val Lys Lys Thr Ala Ala Lys Ser | | |
| | 260 | 265 270 |
| Gln Ser Ser Thr Ser Thr Thr Gly Ala Lys Lys Arg Ala Ala Pro Lys | | |
| | 275 | 280 285 |
| Gly Thr Lys Arg Asp Pro Ala Leu Asn Ser Gly Val Ser Gln Lys Pro | | |
| | 290 | 295 300 |
| Asp Pro Ala Lys Thr Lys Asn Arg Arg Lys Arg Lys Pro Ser Thr Ser | | |
| 305 | 310 | 315 320 |
| Asp Asp Ser Asp Ser Asn Phe Glu Lys Ile Val Ser Lys Ala Val Thr | | |
| | 325 | 330 335 |
| Ser Lys Lys Ser Lys Gly Glu Ser Asp Asp Phe His Met Asp Phe Asp | | |
| | 340 | 345 350 |
| Ser Ala Val Ala Pro Arg Ala Lys Ser Val Arg Ala Lys Lys Pro Ile | | |
| | 355 | 360 365 |
| Lys Tyr Leu Glu Glu Ser Asp Glu Asp Asp Leu Phe | | |
| | 370 | 375 380 |

<210> 1227

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1227

| |
|---|
| Phe Asn Ser Leu Lys Cys Leu Phe Gly Ile Met Ile Gly Asn Leu Asp |
| 1 5 10 15 |

| |
|---|
| Glu Phe Arg Gly Lys Lys Leu Ser Ala Xaa Met Leu Arg Ala His Leu |
| 20 25 30 |

1252

Ser Pro His Thr Pro Thr Glu Leu Thr Gly Leu Gln Cys Phe Ile Arg
 35 40 45

Lys Phe Pro Ile Pro Leu Ser Cys Val Phe Met Leu Lys Ile Leu Leu
 50 55 60

His Phe Ser Phe Glu Cys Gln Phe Leu Thr Ser Thr Ile Ser
 65 70 75

<210> 1228

<211> 222

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1228

Ala Asn Glu Lys Val Ala Leu Gln Lys Ala Leu Leu Tyr Tyr Glu Ser
 1 5 10 15

Ile His Gly Arg Pro Val Thr Lys Asn Glu Arg Gln Val Met Lys Pro
 20 25 30

Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln Ile Leu Ser Arg Ala Asn
 35 40 45

Thr Ile Pro Ile Ile Gly Ser Pro Ser Ser Lys Arg Arg Ser Pro Leu
 50 55 60

Leu Gln Pro Ile Ile Glu Gly Glu Thr Ala Ser Phe Phe Lys Glu Ile
 65 70 75 80

Lys Glu Glu Glu Glu Gly Ser Glu Asp Asp Ser Asn Val Lys Pro Asp
 85 90 95

Phe Met Val Thr Leu Lys Thr Asp Phe Ser Ala Arg Cys Phe Leu Asp
 100 105 110

Gln Phe Glu Asp Asp Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys
 115 120 125

Ile Pro Ser Lys Cys Ser Gln Asp Thr Gly Leu Ser Asn Xaa His Ala
 130 135 140

Ala Ser Ile Pro Glu Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu
 145 150 155 160

1253

Lys Lys Arg Ile Arg Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe
 165 170 175

Arg Gln Asn Gly Arg Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala
 180 185 190

Glu Glu Tyr Ser Glu Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu
 195 200 205

Glu Val Leu Ile Ser Lys Arg Asp Thr Asp Ser Lys Ser Met
 210 215 220

<210> 1229

<211> 220

<212> PRT

<213> Homo sapiens

<400> 1229

Lys Gly Ser Thr Leu Gly His Leu Cys Thr Ala Met Ala Gly Met Met
 1 5 10 15

Lys Gly Ile Arg Trp Ser Cys Pro Ala Ile Ala Ser Ile Ser Gln Thr
 20 25 30

Arg Ser Ser Gln Glu Lys Asp Ser Ser Ser Pro Pro Trp Asp Leu Arg
 35 40 45

Arg Ala Ala Thr Glu Gly Glu Ala Pro Asp Ala Leu Cys Gln Ser Gln
 50 55 60

Val Arg Gly Gln Ser Ser Pro Cys His Pro Trp Cys Arg Pro Ala Pro
 65 70 75 80

Ser Ser Phe Met Pro Gly Pro Ala Gly Thr Pro Ala Thr Thr Glu Ser
 85 90 95

Thr Arg Ser Ala Leu Cys Ser Trp Arg Arg His Ser Arg Val Glu Ser
 100 105 110

Cys Pro Ser Leu Ser Leu Gly His Leu Gly Gly Glu Ser Gly Leu Arg
 115 120 125

Ser Glu Leu Asp Pro Gly Asp Leu Gly Ser Phe Phe Leu Ala His Gln
 130 135 140

Pro Cys Arg Pro His Leu Ser Gln Asn Pro Leu Cys Leu Gly Gly Ser
 145 150 155 160

1254

Gly Ser Ala Leu Leu Cys Ser Arg Arg Leu Gly Ser Gly Gln His Gln
165 170 175

Val Gly Lys Trp Ser Pro Pro Ser Cys Phe Cys Arg Ile Leu Thr Val
180 185 190

Gly Leu Glu Glu Lys Ser Ile Asp Leu Ile Ser Pro Thr Thr His Pro
195 200 205

Ser Phe Ser Phe Phe His His Ser Pro Pro Gln Leu
210 215 220

$\langle 210 \rangle$ 1230

<211> 183

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (12)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1230

Glu Leu Lys Arg Leu Thr Ile Gly Lys Asn Xaa Xaa Arg Leu Thr Gly
1 5 10 15

Asn Arg Xaa Gly Ile Pro Gly Ser Thr His Ala Ser Glu Xaa Glu Val
20 25 30

Glu Glu Glu Gly Asp Val Asp Ser Asp Glu Glu Glu Glu Glu Asp Glu
35 40 45

Glu Ser Ser Ser Glu Gly Leu Glu Ala Glu Asp Trp Ala Gln Gly Val
50 55 60

1255

Val Glu Ala Gly Gly Ser Phe Gly Ala Tyr Gly Ala Gln Glu Glu Ala
 65 70 75 80
 Gln Cys Pro Thr Leu His Phe Leu Glu Gly Gly Glu Asp Ser Asp Ser
 85 90 95
 Asp Ser Glu Glu Glu Asp Asp Glu Glu Glu Asp Asp Glu Asp Glu Asp
 100 105 110
 Asp Asp Asp Asp Glu Glu Asp Gly Asp Glu Val Pro Val Pro Ser Phe
 115 120 125
 Gly Glu Ala Met Ala Tyr Phe Ala Met Val Lys Arg Tyr Leu Thr Ser
 130 135 140
 Phe Pro Ile Asp Asp Arg Val Gln Ser His Ile Leu His Leu Glu His
 145 150 155 160
 Asp Leu Val His Val Thr Arg Lys Asn His Ala Arg Gln Ala Gly Val
 165 170 175
 Arg Gly Leu Gly His Gln Ser
 180

<210> 1231
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 1231
 Asn Leu Tyr Lys Leu Lys Leu Asn His Glu Leu Gln Lys Lys Ser Ile
 1 5 10 15
 Leu Pro Lys Leu Asp Val Thr Thr Leu Thr Ser Leu Lys Tyr Glu Val
 20 25 30
 Asp Cys Leu Lys Asp Ser Ala Tyr Ile Leu Val Cys Thr Phe Arg Asn
 35 40 45
 Ile Phe Leu Gly Lys Ser Thr Gln His Phe Leu
 50 55

<210> 1232
 <211> 135
 <212> PRT
 <213> Homo sapiens

1256

<400> 1232

Gly Ser Thr His Ala Ser Gly Pro Pro Gln Ala Pro Gln Leu Ile Tyr
 1 5 10 15

Gln Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro
 20 25 30

Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu
 35 40 45

Arg Ala Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val
 50 55 60

Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln
 65 70 75 80

Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala
 85 90 95

Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala
 100 105 110

Pro Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr
 115 120 125

Leu Gly Leu Asp Val Pro Val
 130 135

<210> 1233

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1233

Arg Gly Glu Thr Arg Glu Met Ala Gly Asn Leu Leu Ser Gly Ala Gly
 1 5 10 15

Arg Arg Leu Trp Asp Trp Val Pro Leu Ala Cys Arg Ser Phe Ser Leu
 20 25 30

Gly Val Pro Arg Leu Ile Gly Ile Arg Leu Thr Leu Pro Pro Pro Lys
 35 40 45

Val Val Asp Arg Trp Asn Glu Lys Arg Ala Met Phe Gly Val Tyr Asp
 50 55 60

Asn Ile Gly Ile Leu Gly Asn Phe Glu Lys His Pro Lys Glu Leu Ile
 65 70 75 80

1257

Arg Gly Pro Ile Trp Leu Arg Gly Trp Lys Gly Asn Glu Leu Gln Arg
85 90 95

Cys Ile Arg Lys Arg Lys Met Val Gly Ser Arg Met Phe Ala Asp Asp
100 105 110

```

Leu His Asn Leu Asn Lys Arg Ile Arg Tyr Leu Tyr Lys His Phe Asn
      115                      120                      125

```

Arg His Gly Lys Phe Arg
130

<210> 1234

<211> 282

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1234

Thr Gly Pro Glu Phe Pro Gly Xaa Pro Thr Arg Pro Arg Thr Ala Ala
1 5 10 15

Ala Xaa Ser Ala Arg Thr Arg Thr Arg Gly Ser Pro Arg Met Gly Glu
20 25 30

Phe Asn Glu Lys Lys Thr Thr Cys Gly Thr Val Cys Leu Lys Tyr Leu
35 40 45

Leu Phe Thr Tyr Asn Cys Cys Phe Trp Leu Ala Gly Leu Ala Val Met
50 55 60

Ala Val Gly Ile Trp Thr Leu Ala Leu Lys Ser Asp Tyr Ile Ser Leu
65 70 75 80

Leu Ala Ser Gly Thr Tyr Leu Ala Thr Ala Tyr Ile Leu Val Val Ala
85 90 95

Gly Thr Val Val Met Val Thr Gly Val Leu Gly Cys Cys Ala Thr Phe
100 105 110

1258

Lys Glu Arg Arg Asn Leu Leu Arg Leu Tyr Phe Ile Leu Leu Leu Ile
 115 120 125

Ile Phe Leu Leu Glu Ile Ile Ala Gly Ile Leu Ala Tyr Ala Tyr Tyr
 130 135 140

Gln Gln Leu Asn Thr Glu Leu Lys Glu Asn Leu Lys Asp Thr Met Thr
 145 150 155 160

Lys Arg Tyr His Gln Pro Gly His Glu Ala Val Thr Ser Ala Val Asp
 165 170 175

Gln Leu Gln Gln Glu Phe His Cys Cys Gly Ser Asn Asn Ser Gln Asp
 180 185 190

Trp Arg Asp Ser Glu Trp Ile Arg Ser Gln Glu Ala Gly Gly Arg Val
 195 200 205

Val Pro Asp Ser Cys Cys Lys Thr Val Val Ala Leu Cys Gly Gln Arg
 210 215 220

Asp His Ala Ser Asn Ile Tyr Lys Val Glu Gly Gly Cys Ile Thr Lys
 225 230 235 240

Leu Glu Thr Phe Ile Gln Glu His Leu Arg Val Ile Gly Ala Val Gly
 245 250 255

Ile Gly Ile Ala Cys Val Gln Val Phe Gly Met Ile Phe Thr Cys Cys
 260 265 270

Leu Tyr Arg Ser Leu Lys Leu Glu His Tyr
 275 280

<210> 1235

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1235

Ala Glu Ile Gln Val Phe Gln Val Gly Leu Val Ser Trp Gly Leu Tyr
 1 5 10 15

Asn Pro Cys Leu Gly Ser Ala Asp Lys Asn Ser Arg Lys Arg Ala Pro
 20 25 30

Arg Ser Lys Val Pro Pro Pro Arg Asp Phe His Ile Asn Leu Phe Arg
 35 40 45

1259

Met Gln Pro Trp Leu Arg Gln His Leu Gly Asp Val Leu Asn Phe Leu
 50 55 60

Pro Leu
 65

<210> 1236

<211> 108

<212> PRT

<213> Homo sapiens

<400> 1236

Ala Arg Arg Arg Arg Gly Gly Trp Ala Gly Gly Gly Gly Gly Thr Arg
 1 5 10 15

Arg Ala Leu Gly Val Pro Val Ala Arg Arg Arg Arg Met Trp Arg Ala
 20 25 30

Glu Gly Lys Trp Leu Pro Lys Thr Ser Arg Lys Ser Val Ser Gln Ser
 35 40 45

Val Phe Cys Gly Thr Ser Thr Tyr Cys Val Leu Asn Thr Val Pro Pro
 50 55 60

Ile Glu Asp Asp His Gly Asn Ser Asn Ser Ser His Val Lys Ile Phe
 65 70 75 80

Leu Pro Lys Lys Leu Leu Glu Cys Leu Pro Lys Cys Ser Ser Leu Pro
 85 90 95

Lys Glu Arg His Arg Trp Asn Thr Asn Glu Arg Ser
 100 105

<210> 1237

<211> 116

<212> PRT

<213> Homo sapiens

<400> 1237

Arg Gly Gly Gly Ser Lys Gly Asn Glu Val Arg Pro Val Ala Gly Ser
 1 5 10 15

Ala Glu Ser Ala Ala Leu Arg Leu Arg Ala Pro Leu Gln Gln Val Gln
 20 25 30

Ala Gln Leu Ser Pro Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala Val
 35 40 45

1260

Leu Thr Leu Gln Ile Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp Thr
 50 55 60
 Thr Trp Thr Gln Ser Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu Pro
 65 70 75 80
 Ala Trp Arg Ser Ser Gln Arg Ser Thr Gln Lys Asp Pro Val Pro Tyr
 85 90 95
 Gln Pro Pro Phe Leu Cys Gln Trp Gly Arg His Gln Pro Ser Trp Lys
 100 105 110
 Pro Leu Met Asn
 115

<210> 1238

<211> 311

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1238

Val Thr Ser Glu Gly Val Arg Val Arg Ser Ser Arg Gly Arg Ala Xaa
 1 5 10 15
 Gly Val Trp Arg Phe Glu Arg Asp Glu Asp Gly Thr Gly Ala Gly Cys
 20 25 30
 Gly Gln Trp Thr Arg Phe Cys Arg Glu Pro Lys Met Ala Val Asn Val
 35 40 45
 Tyr Ser Thr Ser Val Thr Ser Asp Asn Leu Ser Arg His Asp Met Leu
 50 55 60
 Ala Trp Ile Asn Glu Ser Leu Gln Leu Asn Leu Thr Lys Ile Glu Gln
 65 70 75 80
 Leu Cys Ser Gly Ala Ala Tyr Cys Gln Phe Met Asp Met Leu Phe Pro
 85 90 95
 Gly Ser Ile Ala Leu Lys Lys Val Lys Phe Gln Ala Lys Leu Glu His
 100 105 110
 Glu Tyr Ile Gln Asn Phe Lys Ile Leu Gln Ala Gly Phe Lys Arg Met

1261

| | | |
|---|-----|---------|
| 115 | 120 | 125 |
| Gly Val Asp Lys Ile Ile Pro Val Asp Lys Leu Val Lys Gly Lys Phe | | |
| 130 | 135 | 140 |
| Gln Asp Asn Phe Glu Phe Val Gln Trp Phe Lys Lys Phe Phe Asp Ala | | |
| 145 | 150 | 155 160 |
| Asn Tyr Asp Gly Lys Asp Tyr Asp Pro Val Ala Ala Arg Gln Gly Gln | | |
| | 165 | 170 175 |
| Glu Thr Ala Val Ala Pro Ser Leu Val Ala Pro Ala Leu Asn Lys Pro | | |
| | 180 | 185 190 |
| Lys Lys Pro Leu Thr Ser Ser Ser Ala Ala Pro Gln Arg Pro Ile Ser | | |
| | 195 | 200 205 |
| Thr Gln Arg Thr Ala Ala Ala Pro Lys Ala Gly Pro Gly Val Val Arg | | |
| | 210 | 215 220 |
| Lys Asn Pro Gly Val Gly Asn Gly Asp Asp Glu Ala Ala Glu Leu Met | | |
| 225 | 230 | 235 240 |
| Gln Gln Val Asn Val Leu Lys Leu Thr Val Glu Asp Leu Glu Lys Glu | | |
| | 245 | 250 255 |
| Arg Asp Phe Tyr Phe Gly Lys Leu Arg Asn Ile Glu Leu Ile Cys Gln | | |
| | 260 | 265 270 |
| Glu Asn Glu Gly Glu Asn Asp Pro Val Leu Gln Arg Ile Val Asp Ile | | |
| | 275 | 280 285 |
| Leu Tyr Ala Thr Asp Glu Gly Phe Val Ile Pro Asp Glu Gly Gly Pro | | |
| | 290 | 295 300 |
| Gln Glu Glu Gln Glu Glu Tyr | | |
| 305 | 310 | |

<210> 1239

<211> 345

<212> PRT

<213> Homo sapiens

<400> 1239

| |
|---|
| Ala Ala Arg Leu Ala Val Glu Met Lys Thr Asp Leu Leu Ile Val Leu |
| 1 5 10 15 |

| |
|---|
| Ser Asp Val Glu Gly Leu Phe Asp Ser Pro Pro Gly Ser Asp Asp Ala |
| 20 25 30 |

1262

Lys Leu Ile Asp Ile Phe Tyr Pro Gly Asp Gln Gln Ser Val Thr Phe
 35 40 45
 Gly Thr Lys Ser Arg Val Gly Met Gly Gly Met Glu Ala Lys Val Lys
 50 55 60
 Ala Ala Leu Trp Ala Leu Gln Gly Gly Thr Ser Val Val Ile Ala Asn
 65 70 75 80
 Gly Thr His Pro Lys Val Ser Gly His Val Ile Thr Asp Ile Val Glu
 85 90 95
 Gly Lys Lys Val Gly Thr Phe Phe Ser Glu Val Lys Pro Ala Gly Pro
 100 105 110
 Thr Val Glu Gln Gln Gly Glu Met Ala Arg Ser Gly Gly Arg Met Leu
 115 120 125
 Ala Thr Leu Glu Pro Glu Gln Arg Ala Glu Ile Ile His His Leu Ala
 130 135 140
 Asp Leu Leu Thr Asp Gln Arg Asp Glu Ile Leu Leu Ala Asn Lys Lys
 145 150 155 160
 Asp Leu Glu Glu Ala Glu Gly Arg Leu Ala Ala Pro Leu Leu Lys Arg
 165 170 175
 Leu Ser Leu Ser Thr Ser Lys Leu Asn Ser Leu Ala Ile Gly Leu Arg
 180 185 190
 Gln Ile Ala Ala Ser Ser Gln Asp Ser Val Gly Arg Val Leu Arg Arg
 195 200 205
 Thr Arg Ile Ala Lys Asn Leu Glu Leu Glu Gln Val Thr Val Pro Ile
 210 215 220
 Gly Val Leu Leu Val Ile Phe Glu Ser Arg Pro Asp Cys Leu Pro Gln
 225 230 235 240
 Val Ala Ala Leu Ala Ile Ala Ser Gly Asn Gly Leu Leu Leu Lys Gly
 245 250 255
 Gly Lys Glu Ala Ala His Ser Asn Arg Ile Leu His Leu Leu Thr Gln
 260 265 270
 Glu Ala Leu Ser Ile His Gly Val Lys Glu Ala Val Gln Leu Val Asn
 275 280 285
 Thr Arg Glu Glu Val Glu Asp Leu Cys Arg Leu Asp Lys Met Ile Asp
 290 295 300

1263

Leu Ile Ile Pro Arg Gly Ser Ser Gln Leu Val Arg Asp Ile Gln Lys
 305 310 315 320

Ala Ala Lys Gly Ile Pro Val Met Gly His Ser Glu Gly Ile Cys Ala
 325 330 335

His Val Cys Gly Phe Arg Gly Gln Cys
 340 345

<210> 1240

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1240

Gly Tyr Cys Phe Ile Ser Thr Ser Arg Thr Pro Lys Glu Thr Ile Trp
 1 5 10 15

Val Lys Ala Thr Ser Thr Ala Leu Ala Leu His Arg Phe Leu Glu Phe
 20 25 30

Leu Ser Phe Thr Phe Ser Leu Thr Gln His Cys Leu Leu Phe Val Phe
 35 40 45

Val Ala Trp Phe Val Phe Phe Leu Pro Cys Ser Pro Asn Leu Cys Pro
 50 55 60

Asn Ser Phe Gly Leu Met Gln Lys Tyr Leu Cys Gly Arg Glu Glu Leu
 65 70 75 80

Phe Ser Trp Arg Ala Phe Arg
 85

<210> 1241

<211> 196

<212> PRT

<213> Homo sapiens

<400> 1241

Arg Ala Gly Ser Pro Ala Ser Pro Ala His Val Ala Trp Pro Pro Ala
 1 5 10 15

Pro Thr Trp Ser Arg Ala Leu Pro Arg Val Ala Pro Arg Ser Ser Ser
 20 25 30

Arg Arg Gly Arg Arg Tyr Pro Glu Arg Ser Gln Arg Arg Arg Glu Val

1264

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 35 | | | | | 40 | | | | | 45 | | | | | | |
| Ala | Ala | Thr | Ala | Met | Pro | Lys | Asn | Lys | Gly | Lys | Gly | Gly | Lys | Asn | Arg | |
| 50 | | | | | 55 | | | | | 60 | | | | | | |
| Arg | Arg | Gly | Lys | Asn | Glu | Asn | Glu | Ser | Glu | Lys | Arg | Glu | Leu | Val | Phe | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Lys | Glu | Asp | Gly | Gln | Glu | Tyr | Ala | Gln | Val | Ile | Lys | Met | Leu | Gly | Asn | |
| 85 | | | | | 90 | | | | | 95 | | | | | | |
| Gly | Arg | Leu | Glu | Ala | Met | Cys | Phe | Asp | Gly | Val | Lys | Arg | Leu | Cys | His | |
| 100 | | | | | 105 | | | | | 110 | | | | | | |
| Ile | Arg | Gly | Lys | Leu | Arg | Lys | Lys | Val | Trp | Ile | Asn | Thr | Ser | Asp | Ile | |
| 115 | | | | | 120 | | | | | 125 | | | | | | |
| Ile | Leu | Val | Gly | Leu | Arg | Asp | Tyr | Gln | Asp | Asn | Lys | Ala | Asp | Val | Ile | |
| 130 | | | | | 135 | | | | | 140 | | | | | | |
| Leu | Lys | Tyr | Asn | Ala | Asp | Glu | Ala | Arg | Ser | Leu | Lys | Ala | Tyr | Gly | Glu | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | Pro | Glu | His | Ala | Lys | Ile | Asn | Glu | Thr | Asp | Thr | Phe | Gly | Pro | Gly | |
| 165 | | | | | 170 | | | | | 175 | | | | | | |
| Asp | Asp | Asp | Glu | Ile | Gln | Phe | Asp | Asp | Ile | Gly | Asp | Asp | Asp | Glu | Asp | |
| 180 | | | | | 185 | | | | | 190 | | | | | | |
| Ile | Asp | Asp | Ile | | | | | | | | | | | | | |
| 195 | | | | | | | | | | | | | | | | |

<210> 1242

<211> 218

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

$\langle 222 \rangle$ (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1242

Ala Val Xaa Phe Lys Asp Xaa Ile Tyr Glu Ile Phe Gln Lys Leu Asn

1265

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Thr Ser Ile Gln Val Val Leu Leu Ser Ala Thr Met Pro Thr Asp Val | 20 | 25 | 30 |
| Leu Glu Val Thr Lys Lys Phe Met Arg Asp Pro Ile Arg Ile Leu Val | 35 | 40 | 45 |
| Lys Lys Glu Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Tyr Ile Asn | 50 | 55 | 60 |
| Val Glu Arg Glu Glu Trp Lys Leu Asp Thr Leu Cys Asp Leu Tyr Glu | 65 | 70 | 75 |
| Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Leu Asn Thr Arg Arg Lys | 85 | 90 | 95 |
| Val Asp Trp Leu Thr Glu Lys Met His Ala Arg Asp Phe Thr Val Ser | 100 | 105 | 110 |
| Ala Leu His Gly Asp Met Asp Gln Lys Glu Arg Asp Val Ile Met Arg | 115 | 120 | 125 |
| Glu Phe Arg Ser Gly Ser Ser Arg Val Leu Ile Thr Thr Asp Leu Leu | 130 | 135 | 140 |
| Ala Arg Gly Ile Asp Val Gln Gln Val Ser Leu Val Ile Asn Tyr Asp | 145 | 150 | 155 |
| Leu Pro Thr Asn Arg Glu Asn Tyr Ile His Arg Ile Gly Arg Gly Gly | 165 | 170 | 175 |
| Arg Phe Gly Arg Lys Gly Val Ala Ile Asn Phe Val Thr Glu Glu Asp | 180 | 185 | 190 |
| Lys Arg Ile Leu Arg Asp Ile Glu Thr Phe Tyr Asn Thr Thr Val Glu | 195 | 200 | 205 |
| Glu Met Pro Met Asn Val Ala Asp Leu Ile | 210 | 215 | |

<210> 1243

<211> 173

<212> PRT

<213> Homo sapiens

<400> 1243

| | | | | |
|---|---|---|----|----|
| Leu Asp Gly Ser Ala Arg Ala Glu Leu Ala Leu Ser Val Ala Val Asn | 1 | 5 | 10 | 15 |
|---|---|---|----|----|

1266

Val Ala Pro Gly Arg Leu Cys Ala Gly Arg Tyr Ser Ser Asp Val Gln
 20 25 30
 Glu Met Ile Leu Ser Ser Ala Thr Ala Asp Arg Ile Pro Ile Ala Val
 35 40 45
 Ser Gly Val Arg Gly Met Gly Phe Leu Met Arg His His Ile Glu Thr
 50 55 60
 Gly Gly Gly Gln Leu Pro Ala Lys Leu Ser Ser Leu Phe Val Lys Cys
 65 70 75 80
 Leu Gln Asn Pro Ser Ser Asp Ile Arg Leu Val Ala Glu Lys Met Ile
 85 90 95
 Trp Trp Ala Asn Lys Asp Pro Leu Pro Pro Leu Asp Pro Gln Ala Ile
 100 105 110
 Lys Pro Ile Leu Lys Ala Leu Leu Asp Asn Thr Lys Asp Lys Asn Thr
 115 120 125
 Val Val Arg Ala Tyr Ser Asp Gln Ala Ile Val Asn Leu Leu Lys Met
 130 135 140
 Arg Gln Gly Glu Glu Val Phe Gln Ser Leu Ser Lys Ile Leu Asp Val
 145 150 155 160
 Ala Ser Leu Glu Val Leu Asn Glu Val Asn Arg Ser Pro
 165 170

<210> 1244

<211> 222

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1244

Tyr Ile Lys Ile Tyr Gln Gly Glu Glu Leu Pro His Pro Lys Ser Met
 1 5 10 15

1267

Xaa Gln Ala Thr Ala Glu Ala Asn Asn Leu Ala Ala Val Ala Thr Ala
 20 25 30
 Lys Asp Thr Tyr Asn Lys Lys Met Glu Glu Ile Cys Gly Gly Asp Lys
 35 40 45
 Pro Phe Leu Ala Pro Asn Asp Leu Gln Thr Lys His Leu Gln Leu Lys
 50 55 60
 Glu Glu Ser Val Lys Leu Phe Xaa Gly Val Lys Lys Met Gly Gly Glu
 65 70 75 80
 Glu Phe Ser Arg Arg Tyr Leu Gln Gln Leu Glu Ser Glu Ile Asp Glu
 85 90 95
 Leu Tyr Ile Gln Tyr Ile Lys His Asn Asp Ser Lys Asn Ile Phe His
 100 105 110
 Ala Ala Arg Thr Pro Ala Thr Leu Phe Val Val Ile Phe Ile Thr Tyr
 115 120 125
 Val Ile Ala Gly Val Thr Gly Phe Ile Gly Leu Asp Ile Ile Ala Ser
 130 135 140
 Leu Cys Asn Met Ile Met Gly Leu Thr Leu Ile Thr Leu Cys Thr Trp
 145 150 155 160
 Ala Tyr Ile Arg Tyr Ser Gly Glu Tyr Arg Glu Leu Gly Ala Val Ile
 165 170 175
 Asp Gln Val Ala Ala Ala Leu Trp Asp Gln Ala Leu Tyr Lys Leu Tyr
 180 185 190
 Ser Ala Ala Ala Thr His Arg His Leu Tyr His Gln Ala Phe Pro Thr
 195 200 205
 Pro Lys Ser Glu Ser Thr Glu Gln Ser Glu Lys Lys Lys Met
 210 215 220

<210> 1245

<211> 278

<212> PRT

<213> Homo sapiens

<400> 1245

Ser Ala Glu Asp Val Glu Phe Gln Lys Glu Val Ala Gln Val Arg Lys
 1 5 10 15

1268

Arg Ile Thr Gln Arg Lys Lys Gln Glu Gln Leu Thr Pro Gly Val Val
 20 25 30
 Tyr Val Arg His Leu Pro Asn Leu Leu Asp Glu Thr Gln Ile Phe Ser
 35 40 45
 Tyr Phe Ser Gln Phe Gly Thr Val Thr Arg Phe Arg Leu Ser Arg Ser
 50 55 60
 Lys Arg Thr Gly Asn Ser Lys Gly Tyr Ala Phe Val Glu Phe Glu Ser
 65 70 75 80
 Glu Asp Val Ala Lys Ile Val Ala Glu Thr Met Asn Asn Tyr Leu Phe
 85 90 95
 Gly Glu Arg Leu Leu Glu Cys His Phe Met Pro Pro Glu Lys Val His
 100 105 110
 Lys Glu Leu Phe Lys Asp Trp Asn Ile Pro Phe Lys Gln Pro Ser Tyr
 115 120 125
 Pro Ser Val Lys Arg Tyr Asn Arg Asn Arg Thr Leu Thr Gln Lys Leu
 130 135 140
 Arg Met Glu Glu Arg Phe Lys Lys Lys Glu Arg Leu Leu Arg Lys Lys
 145 150 155 160
 Leu Ala Lys Lys Gly Ile Asp Tyr Asp Phe Pro Ser Leu Ile Leu Gln
 165 170 175
 Lys Thr Glu Ser Ile Ser Lys Thr Asn Arg Gln Thr Ser Thr Lys Gly
 180 185 190
 Gln Val Leu Arg Lys Lys Lys Lys Lys Val Ser Gly Thr Leu Asp Thr
 195 200 205
 Pro Glu Lys Thr Val Asp Ser Gln Gly Pro Thr Pro Val Cys Thr Pro
 210 215 220
 Thr Phe Leu Glu Arg Arg Lys Ser Gln Val Ala Glu Leu Asn Asp Asp
 225 230 235 240
 Asp Lys Asp Asp Glu Ile Val Phe Lys Gln Pro Ile Ser Cys Val Lys
 245 250 255
 Glu Glu Ile Gln Glu Thr Gln Thr Pro Thr His Ser Arg Lys Lys Arg
 260 265 270
 Arg Arg Ser Ser Asn Gln
 275

1269

<210> 1246

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1246

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Pro | Pro | Leu | Ser | Leu | Ile | Leu | Leu | Ser | Pro | Ile | Lys | Ala | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gly | Leu | Thr | Thr | Ser | Pro | Lys | Ser | Val | Leu | Arg | Pro | Ser | Leu | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Cys | Ala | Leu | Leu | Gly | Val | Ser | Gln | Arg | Ser | Gly | Gln | Asp | Cys | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Ala | Ser | Pro | Cys | Ala | Ser | Gln | Glu | His | Arg | Gln | Gly | Val | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Val | Ala | Gly | His | Leu | Ser | Pro | Ser | Ser | Leu | Leu | Asn | Val | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Arg | Gly | Asn | Gly | Val | Ser | Phe | Pro | Thr | Lys | Lys | Pro | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ile | Phe | Xaa | Leu | Gln | Ser | His | Arg | Leu | Gln | Thr | Thr | Leu | Leu | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Met | Asp | Phe | Ser | Ala | His | Phe | Arg |
| | | 115 | | | | | 120 | |

<210> 1247

<211> 36

<212> PRT

<213> Homo sapiens

<400> 1247

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | His | Arg | Val | Leu | Leu | Cys | Asp | Leu | Asn | Phe | Ser | Leu | Gly | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Asp | Ile | Val | Gly | Gly | Leu | Ser | Trp | Phe | Gln | Glu | Ile | Arg | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

1270

Ala Phe Ser Ser

35

<210> 1248

<211> 184

<212> PRT

<213> Homo sapiens

<400> 1248

Trp Ile Pro Arg Ala Cys Arg Glu Phe Gly Thr Arg Phe Gly Gly Val
 1 5 10 15

Thr Arg Gly Phe Asn Met Arg Ile Glu Lys Cys Tyr Phe Cys Ser Gly
 20 25 30

Pro Ile Tyr Pro Gly His Gly Met Met Phe Val Arg Asn Asp Cys Lys
 35 40 45

Val Phe Arg Phe Cys Lys Ser Lys Cys His Lys Asn Phe Lys Lys Lys
 50 55 60

Arg Asn Pro Arg Lys Val Arg Trp Thr Lys Ala Phe Arg Lys Ala Ala
 65 70 75 80

Gly Lys Glu Leu Thr Val Asp Asn Ser Phe Glu Phe Glu Lys Arg Arg
 85 90 95

Asn Glu Pro Ile Lys Tyr Gln Arg Glu Leu Trp Asn Lys Thr Ile Asp
 100 105 110

Ala Met Lys Arg Val Glu Glu Ile Lys Gln Lys Arg Gln Ala Lys Phe
 115 120 125

Ile Met Asn Arg Leu Lys Lys Asn Lys Glu Leu Gln Lys Val Gln Asp
 130 135 140

Ile Lys Glu Val Lys Gln Asn Ile His Leu Ile Arg Ala Pro Leu Ala
 145 150 155 160

Gly Lys Gly Lys Gln Leu Glu Glu Lys Met Val Gln Gln Leu Gln Glu
 165 170 175

Asp Val Asp Met Glu Asp Ala Pro
 180

<210> 1249

<211> 188

1271

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1249

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Pro | Ala | His | Ser | Pro | Gly | Ser | Ala | Lys | Arg | Trp | Thr | Gln | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Ser | Arg | Pro | Arg | Met | Arg | Leu | Val | Val | Thr | Ala | Asp | Asp | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Tyr | Cys | Pro | Arg | Arg | Asp | Glu | Gly | Ile | Val | Glu | Ala | Phe | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Val | Thr | Ser | Val | Ser | Leu | Leu | Val | Asn | Gly | Ala | Ala | Thr | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Ala | Glu | Leu | Ala | Arg | Arg | His | Ser | Ile | Pro | Thr | Gly | Leu | His |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asn | Leu | Ser | Glu | Gly | Arg | Pro | Val | Gly | Pro | Ala | Arg | Arg | Gly | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Leu | Leu | Gly | Pro | Glu | Xaa | Phe | Phe | Leu | Gly | Lys | Met | Gly | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Ala | Val | Ala | Ala | Gly | Asp | Val | Asp | Leu | Pro | Gln | Val | Arg | Ser |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Tyr | Arg | Arg | Met | Leu | Ala | Arg | Thr | Pro | Arg | Ala | Pro | Pro | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Val | Arg | Pro | Leu | Glu | Leu | Ala | Val | Asp | Asp | Phe | Arg | Ile | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Glu | Pro | Ser | His | Gly | Ser | Thr | Arg | Arg | Val | Ser | Ser | Ala | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Gly | Arg | Ser | Arg | Cys | Leu | Ser | Leu | Ala | Leu |
| | | 180 | | | | | | 185 | | | |

<210> 1250

<211> 201

<212> PRT

<213> Homo sapiens

1272

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1250

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Asn | Leu | Glu | Ile | Tyr | Glu | Ala | Val | Thr | Ser | Pro | Gln | Gly | Pro |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Thr | Trp | Ser | Met | Phe | Ala | Val | Gly | Trp | Met | Glu | Leu | Lys | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Cys | Gly | Xaa | Arg | Gly | Leu | Leu | Asp | Arg | Ser | Phe | Ala | Asn | Met | Ala |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Phe | Lys | Val | Trp | Thr | Glu | Asn | Ala | Asp | Gly | Ser | Gly | Ala | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Phe | Leu | Thr | Gly | Met | Gly | Gly | Phe | Leu | Gln | Ala | Val | Val | Phe | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | Gly | Phe | Arg | Val | Ser | Val | Ser | Gly | Ile | Phe | Tyr | Gln | Gly | Xaa |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Asn | Phe | Xaa | Phe | Ser | Glu | Asp | Ser | Val | Thr | Val | Glu | Val | Thr |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Ala | Gly | Pro | Trp | Ala | Pro | His | Leu | Glu | Ala | Glu | Leu | Trp | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gln | Ser | Arg | Leu | Ser | Leu | Leu | Pro | Gly | His | Lys | Val | Ser | Phe | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Ala | Gly | Arg | Ile | Gln | Met | Ser | Pro | Pro | Lys | Leu | Pro | Gly | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

1273

Ser Ser Ser Glu Phe Pro Gly Arg Thr Phe Ser Asp Val Arg Asp Pro
 165 170 175

Leu Gln Ser Pro Leu Trp Val Thr Leu Gly Ser Ser Ser Pro Thr Glu
 180 185 190

Ser Leu Thr Val Asp Pro Ala Ser Glu
 195 200

<210> 1251

<211> 266

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1251

Ser Val Gly Ser Val Ala Ala Ala Thr Arg Thr Gly Pro Val Ser Xaa
 1 5 10 15

Lys Lys Phe Arg Glu Ala Ser Trp Arg Phe Thr Phe Tyr Leu Ile Ala
 20 25 30

Phe Ile Ala Gly Met Ala Val Ile Val Asp Lys Pro Trp Phe Tyr Asp
 35 40 45

Met Lys Lys Val Trp Glu Gly Tyr Pro Ile Gln Ser Thr Ile Pro Ser
 50 55 60

Gln Tyr Trp Tyr Tyr Met Ile Glu Leu Ser Phe Tyr Trp Ser Leu Leu
 65 70 75 80

Phe Ser Ile Ala Ser Asp Val Lys Arg Lys Asp Phe Lys Glu Gln Ile
 85 90 95

Ile His His Val Ala Thr Ile Ile Leu Ile Ser Phe Ser Trp Phe Ala
 100 105 110

Asn Tyr Ile Arg Ala Gly Thr Leu Ile Met Ala Leu His Asp Ser Ser
 115 120 125

Asp Tyr Leu Leu Glu Ser Ala Lys Met Phe Asn Tyr Ala Gly Trp Lys
 130 135 140

Asn Thr Cys Asn Asn Ile Phe Ile Val Phe Ala Ile Val Phe Ile Ile

1274

```

145              150              155              160
Thr Arg Leu Val Ile Leu Pro Phe Trp Ile Leu His Cys Thr Leu Val
              165              170              175
Tyr Pro Leu Glu Leu Tyr Pro Ala Phe Phe Gly Tyr Tyr Phe Phe Asn
              180              185              190
Ser Met Met Gly Val Leu Gln Leu Leu His Ile Phe Trp Ala Tyr Leu
              195              200              205
Ile Leu Arg Met Ala His Lys Phe Ile Thr Gly Lys Leu Val Glu Asp
              210              215              220
Glu Arg Ser Asp Arg Glu Glu Thr Glu Ser Ser Glu Gly Glu Glu Ala
225              230              235              240
Ala Ala Gly Gly Gly Ala Lys Ser Arg Pro Leu Ala Asn Gly His Pro
              245              250              255
Ile Leu Asn Asn Asn His Arg Lys Asn Asp
              260              265

```

<210> 1252

<211> 163

<212> PRT

<213> Homo sapiens

<400> 1252

```

Lys Met Gly Thr Asn Lys Cys Ala Ser Gln Ala Gly Met Thr Ala Tyr
  1              5              10              15
Gly Thr Arg Arg His Leu Tyr Asp Pro Lys Met Gln Thr Asp Lys Pro
              20              25              30
Phe Asp Gln Thr Thr Ile Ser Leu Gln Met Gly Thr Asn Lys Gly Ala
              35              40              45
Ser Gln Ala Gly Met Leu Ala Pro Gly Thr Arg Arg Asp Ile Tyr Asp
              50              55              60
Gln Lys Leu Thr Leu Gln Pro Val Asp Asn Ser Thr Ile Ser Leu Gln
              65              70              75              80
Met Gly Thr Asn Lys Val Ala Ser Gln Lys Gly Met Ser Val Tyr Gly
              85              90              95
Leu Gly Arg Gln Val Tyr Asp Pro Lys Tyr Cys Ala Ala Pro Thr Glu
              100              105              110

```


1275

Pro Val Ile His Asn Gly Ser Gln Gly Thr Gly Thr Asn Gly Ser Glu
 115 120 125

Ile Ser Asp Ser Asp Tyr Gln Ala Glu Tyr Pro Asp Glu Tyr His Gly
 130 135 140

Glu Tyr Gln Asp Asp Tyr Pro Arg Asp Tyr Gln Tyr Ser Asp Gln Gly
 145 150 155 160

Ile Asp Tyr

<210> 1253

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1253

Leu Glu Glu Thr Pro Cys Leu Arg Thr Ala Val Ala Cys Glu Gln Arg
 1 5 10 15

Asp Pro Gly Thr Glu Ser Gln Pro Arg Arg Cys Cys Arg Arg Arg Arg
 20 25 30

Pro Glu Thr Ala Glu Pro Val Arg Pro Pro Pro Pro Pro Thr Pro Asp
 35 40 45

Thr Glu His Pro Val Met Asp Lys Asn Glu Leu Val Gln Lys Ala Lys
 50 55 60

Leu Ala Glu Gln Ala Glu Arg Tyr Asp Asp Met Ala Ala Cys Met Lys
 65 70 75 80

Ser Val Thr Glu Gln Gly Ala Glu Leu Ser Asn Glu Glu Arg Asn Leu
 85 90 95

Leu Ser Val Ala Tyr Lys Asn Val Val Gly Ala Arg Xaa Ser Ser Trp
 100 105 110

Arg Val Val Ser Ser Ile Glu Gln Lys Thr Glu Gly Ala Glu Lys Lys
 115 120 125

Gln Gln Met Ala Arg Glu Tyr Arg Glu Lys Ile Glu Thr Glu Leu Arg

1276

| | | |
|---|-----|-------------|
| 130 | 135 | 140 |
| Asp Ile Cys Asn Asp Val Leu Ser Leu Leu Glu Lys Phe Leu Ile Pro | | |
| 145 | 150 | 155 160 |
| Asn Ala Ser Gln Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly | | |
| | 165 | 170 175 |
| Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp Asp Lys Lys | | |
| | 180 | 185 190 |
| Gly Ile Val Asp Gln Ser Gln Gln Ala Tyr Gln Glu Ala Phe Glu Ile | | |
| | 195 | 200 205 |
| Ser Lys Lys Glu Met Gln Pro Thr His Pro Ile Arg Leu Gly Leu Ala | | |
| | 210 | 215 220 |
| Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu Lys | | |
| | 225 | 230 235 240 |
| Ala Cys Ser Leu Ala Lys Thr Ala Phe Asp Glu Ala Ile Ala Glu Leu | | |
| | 245 | 250 255 |
| Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln | | |
| | 260 | 265 270 |
| Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Thr Gln Gly Asp | | |
| | 275 | 280 285 |
| Glu Ala Glu Ala Gly Glu Gly Gly Glu Asn | | |
| | 290 | 295 |

<210> 1254

<211> 173

<212> PRT

<213> Homo sapiens

<400> 1254

| |
|---|
| Ser Pro Ala Arg Pro Leu Ile Arg Ser Asp Lys Met Lys Glu Thr Ile |
| 1 5 10 15 |
| Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly |
| 20 25 30 |
| Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala |
| 35 40 45 |
| Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu Lys Lys Leu Gly Val |
| 50 55 60 |

1277

Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met Phe Thr Asn Gln Gly
 65 70 75 80
 Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ala Ala
 85 90 95
 Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr Lys Gln Leu Thr Glu
 100 105 110
 Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala Asp Ser Leu Thr Ser
 115 120 125
 Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln Ser Val Asp Gly Lys
 130 135 140
 Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp Asp Glu Val Pro Asp Leu
 145 150 155 160
 Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn
 165 170

<210> 1255

<211> 66

<212> PRT

<213> Homo sapiens

<400> 1255

Leu Cys Cys Pro Phe His Ile Lys Glu Leu Leu Thr Thr Lys Ala Ala
 1 5 10 15
 Pro Ala Phe Pro Ile Cys Leu Ser Ile Trp Leu Ala Gly Lys Glu Arg
 20 25 30
 Thr Cys Met Leu Val Lys Glu Glu Val Gly Trp Lys Lys Trp Gly Gly
 35 40 45
 Thr Thr Val Lys Ser Arg Val Lys Pro Ser Trp Pro Lys Val Ser Cys
 50 55 60
 Arg Leu
 65

<210> 1256

<211> 389

<212> PRT

<213> Homo sapiens

1278

<400> 1256

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ala | Gly | Pro | Gly | Ala | Arg | Ala | Ala | Ala | Ala | Met | Ala | Ile | Lys | 1 | 5 | 10 | 15 |
| Phe | Leu | Glu | Val | Ile | Lys | Pro | Phe | Cys | Val | Ile | Leu | Pro | Glu | Ile | Gln | 20 | 25 | 30 | |
| Lys | Pro | Glu | Arg | Lys | Ile | Gln | Phe | Lys | Glu | Lys | Val | Leu | Trp | Thr | Ala | 35 | 40 | 45 | |
| Ile | Thr | Leu | Phe | Ile | Phe | Leu | Val | Cys | Cys | Gln | Ile | Pro | Leu | Phe | Gly | 50 | 55 | 60 | |
| Ile | Met | Ser | Ser | Asp | Ser | Ala | Asp | Pro | Phe | Tyr | Trp | Met | Arg | Val | Ile | 65 | 70 | 75 | 80 |
| Leu | Ala | Ser | Asn | Arg | Gly | Thr | Leu | Met | Glu | Leu | Gly | Ile | Ser | Pro | Ile | 85 | 90 | 95 | |
| Val | Thr | Ser | Gly | Leu | Ile | Met | Gln | Leu | Leu | Ala | Gly | Ala | Lys | Ile | Ile | 100 | 105 | 110 | |
| Glu | Val | Gly | Asp | Thr | Pro | Lys | Asp | Arg | Ala | Leu | Phe | Asn | Gly | Ala | Gln | 115 | 120 | 125 | |
| Lys | Leu | Phe | Gly | Met | Ile | Ile | Thr | Ile | Gly | Gln | Ser | Ile | Val | Tyr | Val | 130 | 135 | 140 | |
| Met | Thr | Gly | Met | Tyr | Gly | Asp | Pro | Ser | Glu | Met | Gly | Ala | Gly | Ile | Cys | 145 | 150 | 155 | 160 |
| Leu | Leu | Ile | Thr | Ile | Gln | Leu | Phe | Val | Ala | Gly | Leu | Ile | Val | Leu | Leu | 165 | 170 | 175 | |
| Leu | Asp | Glu | Leu | Leu | Gln | Lys | Gly | Tyr | Gly | Leu | Gly | Ser | Gly | Ile | Ser | 180 | 185 | 190 | |
| Leu | Phe | Ile | Ala | Thr | Asn | Ile | Cys | Glu | Thr | Ile | Val | Trp | Lys | Ala | Phe | 195 | 200 | 205 | |
| Ser | Pro | Thr | Thr | Val | Asn | Thr | Gly | Arg | Gly | Met | Glu | Phe | Glu | Gly | Ala | 210 | 215 | 220 | |
| Ile | Ile | Ala | Leu | Phe | His | Leu | Leu | Ala | Thr | Arg | Thr | Asp | Lys | Val | Arg | 225 | 230 | 235 | 240 |
| Ala | Leu | Arg | Glu | Ala | Phe | Tyr | Arg | Gln | Asn | Leu | Pro | Asn | Leu | Met | Asn | 245 | 250 | 255 | |
| Leu | Ile | Ala | Thr | Ile | Phe | Val | Phe | Ala | Val | Val | Ile | Tyr | Phe | Gln | Gly | | | | |

1279

260 265 270
 Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr Arg Gly Gln Tyr
 275 280 285
 Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn Ile Pro Ile Ile
 290 295 300
 Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile Ser Gln Met Leu
 305 310 315 320
 Ser Ala Arg Phe Ser Gly Asn Leu Leu Val Ser Leu Leu Gly Thr Trp
 325 330 335
 Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr Pro Val Gly Gly
 340 345 350
 Leu Cys Tyr Tyr Leu Ser Pro Pro Trp Ser Met Asn Ser Thr Gly Thr
 355 360 365
 Ser Pro Gln Pro Arg Pro Leu Val Gly Cys Ala Ser Gly Pro Ser Arg
 370 375 380
 Ser Trp Leu Thr Ser
 385

<210> 1257

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1257

Gly Xaa Pro Ser Ser Ser Arg Ala His Ser Pro Met Ile Ala Val Gly
 1 5 10 15
 Ser Asp Asp Ser Ser Pro Asn Ala Met Ala Lys Val Gln Ile Phe Glu
 20 25 30
 Tyr Asn Glu Asn Thr Arg Lys Tyr Ala Lys Ala Glu Thr Leu Met Thr
 35 40 45
 Val Thr Asp Pro Val His Asp Ile Ala Phe Ala Pro Asn Leu Gly Arg
 50 55 60

1280

Ser Phe His Ile Leu Ala Ile Ala Thr Lys Asp Val Arg Ile Phe Thr
65 70 75 80

Leu Lys Pro Val Arg Lys Glu Leu Thr Ser Ser Gly Gly Pro Thr Lys
85 90 95

Phe Glu Ile His Ile Val Ala Gln Phe Asp Asn His Asn Ser Gln Val
100 105 110

Trp Arg Val Ser Trp Asn Ile Thr Gly Thr Val Leu Ala Ser Ser Gly
115 120 125

Asp Asp Gly Cys Val Arg Leu Trp Lys Ala Asn Tyr Met Asp Asn Trp
130 135 140

Lys Cys Thr Gly Ile Leu Lys Gly Asn Gly Ser Pro Val Asn Gly Ser
145 150 155 160

Ser Gln Gln Gly Thr Ser Asn Pro Ser Leu Gly Ser Asn Ile Pro Ser
165 170 175

Leu Gln Asn Ser Leu Asn Gly Ser Ser Ala Gly Arg Lys His Ser
180 185 190

<210> 1258

<211> 458

<212> PRT

<213> Homo sapiens

<400> 1258

Pro Gly Ala Arg His Gly Ser Ala Ser Ala Pro Thr Leu Phe Pro Leu
1 5 10 15

Val Ser Cys Glu Asn Ser Pro Ser Asp Thr Ser Ser Val Ala Val Gly
20 25 30

Cys Leu Ala Gln Asp Phe Leu Pro Asp Ser Ile Thr Phe Ser Trp Lys
35 40 45

Tyr Lys Asn Asn Ser Asp Ile Ser Ser Thr Arg Gly Phe Pro Ser Val
50 55 60

Leu Arg Gly Gly Lys Tyr Ala Ala Thr Ser Gln Val Leu Leu Pro Ser
65 70 75 80

Lys Asp Val Met Gln Gly Thr Asp Glu His Val Val Cys Lys Val Gln
85 90 95

His Pro Asn Gly Asn Lys Glu Lys Asn Val Pro Leu Pro Val Ile Ala

1281

| 100 | | | | | | | 105 | | | | | | | 110 | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|
| Glu | Leu | Pro | Pro | Lys | Val | Ser | Val | Phe | Val | Pro | Pro | Arg | Asp | Gly | Phe | | | | | |
| | | 115 | | | | | | 120 | | | | | 125 | | | | | | | |
| Phe | Gly | Asn | Pro | Arg | Lys | Ser | Lys | Leu | Ile | Cys | Gln | Ala | Thr | Gly | Phe | | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | | |
| Ser | Pro | Arg | Gln | Ile | Gln | Val | Ser | Trp | Leu | Arg | Glu | Gly | Lys | Gln | Val | | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | | | | | | |
| Gly | Ser | Gly | Val | Thr | Thr | Asp | Gln | Val | Gln | Ala | Glu | Ala | Lys | Glu | Ser | | | | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | | | | |
| Gly | Pro | Thr | Thr | Tyr | Lys | Val | Thr | Ser | Thr | Leu | Thr | Ile | Lys | Glu | Ser | | | | | |
| | | | | 180 | | | | 185 | | | | | 190 | | | | | | | |
| Asp | Trp | Leu | Ser | Gln | Ser | Met | Phe | Thr | Cys | Arg | Val | Asp | His | Arg | Gly | | | | | |
| | | 195 | | | | | | 200 | | | | 205 | | | | | | | | |
| Leu | Thr | Phe | Gln | Gln | Asn | Ala | Ser | Ser | Met | Cys | Val | Pro | Asp | Gln | Asp | | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | | |
| Thr | Ala | Ile | Arg | Val | Phe | Ala | Ile | Pro | Pro | Ser | Phe | Ala | Ser | Ile | Phe | | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | | | | | | |
| Leu | Thr | Lys | Ser | Thr | Lys | Leu | Thr | Cys | Leu | Val | Thr | Asp | Leu | Thr | Thr | | | | | |
| | | | | 245 | | | | 250 | | | | | | 255 | | | | | | |
| Tyr | Asp | Ser | Val | Thr | Ile | Ser | Trp | Thr | Arg | Gln | Asn | Gly | Glu | Ala | Val | | | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | | | |
| Lys | Thr | His | Thr | Asn | Ile | Ser | Glu | Ser | His | Pro | Asn | Ala | Thr | Phe | Ser | | | | | |
| | | 275 | | | | | | 280 | | | | 285 | | | | | | | | |
| Ala | Val | Gly | Glu | Ala | Ser | Ile | Cys | Glu | Asp | Asp | Trp | Asn | Ser | Gly | Glu | | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | | |
| Arg | Phe | Thr | Cys | Thr | Val | Thr | His | Thr | Asp | Leu | Pro | Ser | Pro | Leu | Lys | | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | | | | | | |
| Gln | Thr | Ile | Ser | Arg | Pro | Lys | Gly | Val | Ala | Leu | His | Arg | Pro | Asp | Val | | | | | |
| | | | | 325 | | | | 330 | | | | | 335 | | | | | | | |
| Tyr | Leu | Leu | Pro | Pro | Ala | Arg | Glu | Gln | Leu | Asn | Leu | Arg | Glu | Ser | Ala | | | | | |
| | | | 340 | | | | | 345 | | | | 350 | | | | | | | | |
| Thr | Ile | Thr | Cys | Leu | Val | Thr | Gly | Phe | Ser | Pro | Ala | Asp | Val | Phe | Val | | | | | |
| | | | 355 | | | | | 360 | | | | 365 | | | | | | | | |
| Gln | Trp | Met | Gln | Arg | Gly | Gln | Pro | Leu | Ser | Pro | Glu | Lys | Tyr | Val | Thr | | | | | |

1282

370 375 380
 Ser Ala Pro Met Pro Glu Pro Gln Ala Pro Gly Arg Tyr Phe Ala His
 385 390 395 400
 Ser Ile Leu Thr Val Ser Glu Glu Glu Trp Asn Thr Gly Glu Thr Tyr
 405 410 415
 Thr Cys Val Val Ala His Glu Ala Leu Pro Asn Arg Val Thr Glu Arg
 420 425 430
 Thr Val Asp Lys Ser Thr Gly Lys Pro Thr Leu Tyr Asn Val Ser Leu
 435 440 445
 Val Met Ser Asp Thr Ala Gly Thr Cys Tyr
 450 455

<210> 1259

<211> 247

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1259

Ala Gly Pro Ala Pro Glu Glu Pro Arg Gly Gly Ala Ala Ala Arg Trp
 1 5 10 15
 Asp Cys Gln Pro Cys Gln Ala Ala Xaa Val Val Glu Asn Ser Ala Gln
 20 25 30
 Arg Val Ile His Leu Ala Gly Gln Trp Glu Lys His Arg Val Pro Leu
 35 40 45
 Leu Ala Glu Tyr Arg His Leu Arg Lys Leu Gln Asp Cys Arg Glu Leu
 50 55 60
 Glu Ser Ser Arg Arg Leu Ala Glu Ile Gln Glu Leu His Gln Ser Val
 65 70 75 80
 Arg Ala Ala Ala Glu Glu Ala Arg Arg Lys Glu Glu Val Tyr Lys Gln
 85 90 95
 Leu Met Ser Glu Leu Glu Thr Leu Pro Arg Asp Val Ser Arg Leu Ala
 100 105 110

1283

Tyr Thr Gln Arg Ile Leu Glu Ile Val Gly Asn Ile Arg Lys Gln Lys
 115 120 125

Glu Glu Ile Thr Lys Ile Leu Ser Asp Thr Lys Glu Leu Gln Lys Glu
 130 135 140

Ile Asn Ser Leu Ser Gly Lys Leu Asp Arg Thr Phe Ala Val Thr Asp
 145 150 155 160

Glu Leu Val Phe Lys Asp Ala Lys Lys Asp Asp Ala Val Arg Lys Ala
 165 170 175

Tyr Lys Tyr Leu Ala Ala Leu His Glu Asn Cys Ser Gln Leu Ile Gln
 180 185 190

Thr Ile Glu Asp Thr Gly Thr Ile Met Arg Glu Val Arg Asp Leu Glu
 195 200 205

Glu Gln Ile Glu Thr Glu Leu Gly Lys Lys Thr Leu Ser Asn Leu Glu
 210 215 220

Lys Ile Arg Glu Asp Tyr Arg Ala Leu Arg Gln Glu Asn Ala Gly Leu
 225 230 235 240

Leu Gly Arg Val Arg Glu Ala
 245

<210> 1260

<211> 62

<212> PRT

<213> Homo sapiens

<400> 1260

Val Gly Ile Lys Trp Ile Glu Glu Ala Val Leu Cys Ala Asn Val Ser
 1 5 10 15

Phe Ala Ser Asp Arg Tyr Leu Phe Val Ile Arg Arg Val Ala Ser Phe
 20 25 30

His Leu Gly Ala Glu Asn Ser Arg Gln Leu Leu Thr Asp Lys Phe Asn
 35 40 45

Leu His Leu Gln Tyr Cys Met Leu Gly Ile Ser Ala Tyr Phe
 50 55 60

<210> 1261

<211> 243

1284

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (210)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (226)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1261

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Arg | Pro | Gly | Asn | Phe | Tyr | Val | Ser | Ser | Glu | Ser | Ile | Arg | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Pro | Val | Arg | Pro | Trp | Arg | Asp | Arg | Pro | Gln | Ser | Ser | Ile | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Phe | Ala | Gly | Met | Lys | Thr | Pro | Gly | Gln | Arg | Gln | Leu | Ile | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gln | Glu | Gln | Val | Lys | Leu | Gly | Ile | Val | Asn | Val | Asp | Glu | Ala | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Phe | Lys | Glu | Trp | Gln | Leu | Asn | Gln | Lys | Xaa | Arg | Ser | Glu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Phe | Gln | Gln | Glu | Asn | Leu | Lys | Arg | Leu | Arg | Asp | Ser | Ile | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Gln | Arg | Glu | Lys | Gln | Lys | Ser | Gly | Lys | Gln | Thr | Asp | Leu | Glu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Val | Pro | Ile | Arg | His | Ser | Gln | His | Leu | Pro | Ala | Lys | Val | Glu |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Val | Tyr | Glu | Ser | Gly | Pro | Arg | Lys | Ser | Val | Ile | Pro | Pro | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Glu | Leu | Arg | Arg | Gly | Asp | Trp | Lys | Thr | Asp | Ser | Thr | Ser | Ser | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Ser | Thr | Ser | Asn | Arg | Ser | Ser | Thr | Arg | Ser | Leu | Leu | Ser | Val |
| | | | 165 | | | | | | 170 | | | | | 175 | |

1285

Ser Ser Gly Met Glu Gly Asp Asn Glu Asp Asn Glu Val Pro Glu Val
 180 185 190
 Thr Arg Ser Arg Ser Pro Gly Pro Pro Gln Val Asp Gly Thr Pro Thr
 195 200 205
 Met Xaa Leu Glu Arg Pro Pro Arg Val Pro Pro Arg Ala Ala Ser Gln
 210 215 220
 Arg Xaa Pro Thr Arg Glu Thr Phe His Pro Pro Pro Pro Val Pro Pro
 225 230 235 240
 Arg Gly Arg

<210> 1262
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 1262
 Lys Tyr Val Arg Asn Asp Gln Asn Lys Arg Lys Phe Leu Phe Ser Cys
 1 5 10 15
 Lys Tyr Phe Ser Ser Val Ile Thr Leu Lys Tyr Lys Leu Lys Tyr Asn
 20 25 30
 Thr Pro Glu Cys Leu Arg His Asp Leu Asp Phe Lys Cys Val Val Phe
 35 40 45
 Ile Glu Lys Lys Leu Ser Thr His Leu Val Phe Gln Glu Asn Leu Lys
 50 55 60
 Arg Ser Gln Gly Lys Met Ile Cys Met Leu Lys
 65 70 75

<210> 1263
 <211> 475
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (249)
 <223> xaa equals any of the naturally occurring L-amino acids

1286

<400> 1263

```

Arg Thr Gly Leu Gly Arg Asp Val Gly Ala Gly Ala Arg Arg Ala Ala
 1              5              10              15

Arg Cys Arg Ala Glu Ala Ala Ala Val Gly Thr Ala Arg Ser Pro
          20              25              30

Ala Leu Gly Met Ala Leu Leu Val Leu Gly Leu Val Ser Cys Thr Phe
          35              40              45

Phe Leu Ala Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val Ile Glu
          50              55              60

Leu Thr Pro Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp Ser Leu
          65              70              75              80

Trp Leu Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln Arg Leu
          85              90              95

Thr Pro Glu Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val Val Lys
          100              105              110

Val Gly Ala Val Asp Ala Asp Lys His His Ser Leu Gly Gly Gln Tyr
          115              120              125

Gly Val Gln Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn Lys Asn
          130              135              140

Arg Pro Glu Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile Val Asp
          145              150              155              160

Ala Ala Leu Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu Gly Gly
          165              170              175

Arg Ser Gly Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp Ser Ser
          180              185              190

Ser Lys Lys Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp Lys Asn
          195              200              205

Val Leu Asp Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala Pro Trp
          210              215              220

Cys Gly His Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala Ala Ser
          225              230              235              240

Glu Val Lys Glu Gln Thr Lys Gly Xaa Val Lys Leu Ala Ala Val Asp
          245              250              255

Ala Thr Val Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg Gly Phe
          260              265              270

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1287

```

Pro Thr Ile Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp
      275                      280                      285

Gly Gly Arg Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe
      290                      295                      300

Ser Asp Asn Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp
305                      310                      315                      320

Ile Ala Lys Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val
      325                      330                      335

Leu Pro His Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu
      340                      345                      350

Glu Val Leu Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly
      355                      360                      365

Trp Leu Trp Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu
      370                      375                      380

Gly Ile Gly Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg
385                      390                      395                      400

Lys Met Lys Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile
      405                      410                      415

Asn Glu Phe Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro
      420                      425                      430

Val Gly Gly Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp
      435                      440                      445

Gly Arg Asp Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp
      450                      455                      460

Val Glu Leu Asp Asp Leu Gly Lys Asp Glu Leu
465                      470                      475

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<210> 1264

<211> 398

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

1288

<400> 1264

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Glu | Arg | Thr | Ser | Ser | Lys | Arg | Val | Ser | Arg | Ser | Leu | Asp | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Pro | Ile | Gly | Val | Met | Asp | Gln | Ser | Leu | Met | Xaa | Asp | Phe | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Gly | Glu | Ile | Ser | Ala | Tyr | Gly | Pro | Gly | Leu | Val | Ser | Ile | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Val | Gln | Asp | Gly | Asp | Gly | Arg | Arg | Glu | Val | Arg | Ser | Pro | Thr | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Pro | His | Leu | Gln | Leu | Ile | Glu | Gly | Lys | Ser | Ser | His | Glu | Thr | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Ile | Val | Glu | Glu | Lys | Lys | Arg | Ala | Glu | Val | Gly | Lys | Asp | Glu | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Ile | Thr | Glu | Glu | Met | Asn | Gly | Lys | Glu | Ile | Ser | Pro | Gly | Ser | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Gly | Glu | Ile | Arg | Lys | Val | Glu | Pro | Val | Thr | Gln | Lys | Asp | Ser | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Leu | Ser | Ser | Glu | Ser | Ser | Ser | Ser | Ser | Ser | Glu | Ser | Glu | Glu | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Val | Gly | Glu | Tyr | Arg | Pro | His | His | Arg | Val | Thr | Glu | Gly | Thr | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Glu | Glu | Gln | Glu | Tyr | Glu | Glu | Glu | Val | Glu | Glu | Glu | Pro | Arg | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Ala | Lys | Val | Val | Glu | Arg | Glu | Glu | Ala | Val | Pro | Glu | Ala | Ser | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Thr | Gln | Ala | Gly | Ala | Ser | Val | Ile | Thr | Val | Glu | Thr | Val | Ile | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Asn | Val | Gly | Ala | Gln | Lys | Ile | Pro | Gly | Glu | Lys | Ser | Val | His | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Ala | Leu | Lys | Gln | Asp | Met | Gly | Glu | Glu | Ala | Glu | Glu | Glu | Pro | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Val | Asn | Gly | Glu | Val | Ser | His | Val | Asp | Ile | Asp | Val | Leu | Pro | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Ile | Cys | Cys | Ser | Glu | Pro | Pro | Val | Val | Lys | Thr | Glu | Met | Val | Thr |

1289

| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Ile Ser Asp Ala Ser Gln Arg Thr Glu Ile Ser Thr Lys Glu Val Pro | | |
| 275 | 280 | 285 |
| Ile Val Gln Thr Glu Thr Lys Thr Ile Thr Tyr Glu Ser Pro Gln Ile | | |
| 290 | 295 | 300 |
| Asp Gly Gly Ala Gly Gly Asp Ser Gly Thr Leu Leu Thr Ala Gln Thr | | |
| 305 | 310 | 315 |
| Ile Thr Ser Glu Ser Val Ser Thr Thr Thr Thr Thr His Ile Thr Lys | | |
| 325 | 330 | 335 |
| Thr Val Lys Gly Gly Ile Ser Glu Thr Arg Ile Glu Lys Arg Ile Val | | |
| 340 | 345 | 350 |
| Ile Thr Gly Asp Gly Asp Ile Asp His Asp Gln Ala Leu Ala Gln Ala | | |
| 355 | 360 | 365 |
| Ile Arg Glu Ala Arg Glu Gln His Pro Asp Met Ser Val Thr Arg Val | | |
| 370 | 375 | 380 |
| Val Val His Lys Glu Thr Glu Leu Ala Glu Glu Gly Glu Asp | | |
| 385 | 390 | 395 |

<210> 1265

<211> 207

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1265

| | | |
|---|----|----|
| Trp Thr Gly Thr Gly Arg Gly Ala Val Ala Ile Met Ala Asp Pro Asp | | |
| 1 | 5 | 10 |
| Pro Arg Tyr Pro Arg Ser Ser Ile Glu Asp Asp Phe Asn Tyr Gly Ser | | |
| 20 | 25 | 30 |
| Ser Val Ala Ser Ala Thr Val His Ile Arg Met Ala Phe Leu Arg Lys | | |
| 35 | 40 | 45 |
| Val Tyr Ser Ile Leu Ser Leu Gln Val Leu Leu Thr Thr Val Thr Ser | | |
| 50 | 55 | 60 |

1290

Thr Val Phe Leu Tyr Phe Glu Ser Val Arg Thr Phe Val His Glu Ser
 65 70 75 80
 Pro Ala Leu Ile Leu Leu Phe Ala Leu Gly Ser Leu Gly Leu Ile Phe
 85 90 95
 Ala Leu Xaa Leu Asn Arg His Lys Tyr Pro Leu Asn Leu Tyr Leu Leu
 100 105 110
 Phe Gly Phe Thr Leu Leu Glu Ala Leu Thr Val Ala Val Val Val Thr
 115 120 125
 Phe Tyr Asp Val Tyr Ile Ile Leu Gln Ala Phe Ile Leu Thr Thr Thr
 130 135 140
 Val Phe Phe Gly Leu Thr Val Tyr Thr Leu Gln Ser Lys Lys Asp Phe
 145 150 155 160
 Ser Lys Phe Gly Ala Gly Leu Phe Ala Leu Leu Trp Ile Leu Cys Leu
 165 170 175
 Ser Gly Phe Leu Lys Phe Phe Phe Tyr Ser Glu Ile Met Glu Leu Val
 180 185 190
 Leu Ala Ala Ala Gly Ala Leu Leu Phe Trp Gly Ile His His Leu
 195 200 205

<210> 1266

<211> 289

<212> PRT

<213> Homo sapiens

<400> 1266

Ser Arg Asp Pro Asn Gly Trp Trp Arg Arg Leu Arg Val Ser Ala Glu
 1 5 10 15
 Leu Ala Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu
 20 25 30
 Ala Leu Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg
 35 40 45
 Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg
 50 55 60
 Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser
 65 70 75 80
 Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr

1291

| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Leu | Thr | Lys | Glu | Glu | Cys | Leu | Lys | Lys | Cys | Ala | Thr | Val | Thr | Glu | Asn | | | | |
| | | | 100 | | | | | 105 | | | | | | 110 | | | | | |
| Ala | Thr | Gly | Asp | Leu | Ala | Thr | Ser | Arg | Asn | Ala | Ala | Asp | Ser | Ser | Val | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Pro | Ser | Ala | Pro | Arg | Arg | Gln | Asp | Ser | Glu | Asp | His | Ser | Ser | Asp | Met | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | |
| Phe | Asn | Tyr | Glu | Glu | Tyr | Cys | Thr | Ala | Asn | Ala | Val | Thr | Gly | Pro | Cys | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Arg | Ala | Ser | Phe | Pro | Arg | Trp | Tyr | Phe | Asp | Val | Glu | Arg | Asn | Ser | Cys | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | |
| Asn | Asn | Phe | Ile | Tyr | Gly | Gly | Cys | Arg | Gly | Asn | Lys | Asn | Ser | Tyr | Arg | | | | |
| | | | 180 | | | | | 185 | | | | | | 190 | | | | | |
| Ser | Glu | Glu | Ala | Cys | Met | Leu | Arg | Cys | Phe | Arg | Gln | Gln | Glu | Asn | Pro | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | | |
| Pro | Leu | Pro | Leu | Gly | Ser | Lys | Val | Val | Val | Leu | Ala | Gly | Leu | Phe | Val | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | |
| Met | Val | Leu | Ile | Leu | Phe | Leu | Gly | Ala | Ser | Met | Val | Tyr | Leu | Ile | Arg | | | | |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 | | | | |
| Val | Ala | Arg | Arg | Asn | Gln | Glu | Arg | Ala | Leu | Arg | Thr | Val | Trp | Ser | Ser | | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | |
| Gly | Asp | Asp | Lys | Glu | Gln | Leu | Val | Lys | Asn | Thr | Tyr | Val | Leu | Cys | Arg | | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | | |
| Pro | Val | Ala | Lys | Arg | Thr | Gly | Glu | Gly | Arg | Gly | Asp | Met | Cys | Asp | Phe | | | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | | | |

Phe

<210> 1267

<211> 284

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

1292

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1267

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Arg | Arg | Xaa | Xaa | Ala | Ser | Leu | Arg | Gly | Trp | Pro | Val | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Met | Gly | Arg | Val | Gln | Leu | Phe | Glu | Ile | Ser | Leu | Ser | His | Gly | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Tyr | Ser | Pro | Gly | Glu | Pro | Leu | Ala | Gly | Thr | Val | Arg | Val | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Ala | Pro | Leu | Pro | Phe | Arg | Ala | Ile | Arg | Val | Thr | Cys | Ile | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Cys | Gly | Val | Ser | Asn | Lys | Ala | Asn | Asp | Thr | Ala | Trp | Val | Val | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gly | Tyr | Phe | Asn | Ser | Ser | Leu | Ser | Leu | Ala | Asp | Lys | Gly | Ser | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Gly | Glu | His | Ser | Phe | Pro | Phe | Gln | Phe | Leu | Leu | Pro | Ala | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Thr | Ser | Phe | Glu | Gly | Pro | Phe | Gly | Lys | Ile | Val | His | Gln | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ala | Ala | Ile | His | Thr | Pro | Arg | Phe | Ser | Lys | Asp | His | Lys | Cys | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Phe | Tyr | Ile | Leu | Ser | Pro | Leu | Asn | Leu | Asn | Ser | Ile | Pro | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Gln | Pro | Asn | Val | Ala | Ser | Ala | Thr | Lys | Lys | Phe | Ser | Tyr | Lys |
| | | | 165 | | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Lys | Thr | Gly | Ser | Val | Val | Leu | Thr | Ala | Ser | Thr | Asp | Leu | Arg |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Tyr | Val | Val | Gly | Gln | Ala | Leu | Gln | Leu | His | Ala | Asp | Val | Glu | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Gly | Lys | Asp | Thr | Ser | Pro | Val | Val | Ala | Ser | Leu | Leu | Gln | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ser | Tyr | Lys | Ala | Lys | Arg | Trp | Ile | His | Asp | Val | Arg | Thr | Ile | Ala |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1293

225 230 235 240
 Glu Val Glu Gly Ala Gly Val Lys Ala Trp Arg Arg Ala Gln Trp His
 245 250 255
 Glu Gln Ile Leu Val Pro Ala Leu Pro Gln Ser Ala Leu Pro Ala Ala
 260 265 270
 Ala Ser Ser Thr Ser Thr Thr Thr Tyr Arg Ser Leu
 275 280

<210> 1268

<211> 254

<212> PRT

<213> Homo sapiens

<400> 1268

Val Trp Leu Arg Val Glu Asn Val Cys Gln Gly Pro Gly Gln Glu Gly
 1 5 10 15
 Gly Pro Pro Val Thr Met Val Ser Met Ser Phe Lys Arg Asn Arg Ser
 20 25 30
 Asp Arg Phe Tyr Ser Thr Arg Cys Cys Gly Cys Cys His Val Arg Thr
 35 40 45
 Gly Thr Ile Ile Leu Gly Thr Trp Tyr Met Val Val Asn Leu Leu Met
 50 55 60
 Ala Ile Leu Leu Thr Val Glu Val Thr His Pro Asn Ser Met Pro Ala
 65 70 75 80
 Val Asn Ile Gln Tyr Glu Val Ile Gly Asn Tyr Tyr Ser Ser Glu Arg
 85 90 95
 Met Ala Asp Asn Ala Cys Val Leu Phe Ala Val Ser Val Leu Met Phe
 100 105 110
 Ile Ile Ser Ser Met Leu Val Tyr Gly Ala Ile Ser Tyr Gln Val Gly
 115 120 125
 Trp Leu Ile Pro Phe Phe Cys Tyr Arg Leu Phe Asp Phe Val Leu Ser
 130 135 140
 Cys Leu Val Ala Ile Ser Ser Leu Thr Tyr Leu Pro Arg Ile Lys Glu
 145 150 155 160
 Tyr Leu Asp Gln Leu Pro Asp Phe Pro Tyr Lys Asp Asp Leu Leu Ala
 165 170 175

1294

```

Leu Asp Ser Ser Cys Leu Leu Phe Ile Val Leu Val Phe Phe Ala Leu
      180                      185                      190

Phe Ile Ile Phe Lys Ala Tyr Leu Ile Asn Cys Val Trp Asn Cys Tyr
      195                      200                      205

Lys Tyr Ile Asn Asn Arg Asn Val Pro Glu Ile Ala Val Tyr Pro Ala
      210                      215                      220

Phe Glu Ala Pro Pro Gln Tyr Val Leu Pro Thr Tyr Glu Met Ala Val
      225                      230                      235                      240

Lys Met Pro Glu Lys Glu Pro Pro Pro Pro Tyr Leu Pro Ala
      245                      250

```

<210> 1269

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1269

```

Lys Ser Ile Leu Val Ile Arg Val Tyr Phe Phe Tyr Arg Thr Arg Trp
  1              5              10              15

```

```

Xaa Gly Gly Glu Pro Phe Thr Leu Leu Val Lys Leu Asn His Arg Lys
      20              25              30

```

```

Phe Thr Ile Cys Leu Ser Gln Thr Leu Ala Val Arg Gly Met Val Ala

```

1295

35 40 45
Xaa Ala Cys Xaa Xaa Pro Ala Cys Trp Gly Gly Pro Ser Trp Gly Gly
50 55 60
Leu Pro Glu
65

<210> 1270
<211> 164
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (138)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (152)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (161)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (164)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1270

1296

Gly Ser Pro Gly Thr Xaa Arg Ile Pro Xaa Thr Arg Xaa Glu Thr Cys
 1 5 10 15
 Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr Glu
 20 25 30
 Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala Gly
 35 40 45
 Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly Gly
 50 55 60
 Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr Gly
 65 70 75 80
 Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu Trp
 85 90 95
 Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly Thr
 100 105 110
 Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp Met
 115 120 125
 Met Val Asp Cys Thr Cys Leu Gly Glu Xaa Ser Gly Arg Ile Thr Cys
 130 135 140
 Thr Ser Arg Asn Arg Cys Asn Xaa Gln Asp Thr Arg Thr Ser Ile Glu
 145 150 155 160
 Xaa Glu Thr Xaa

<210> 1271

<211> 363

<212> PRT

<213> Homo sapiens

<400> 1271

Ala Arg Gly Ser Glu Cys Gly Gln Arg Ala Glu Ala Val Ser His Arg
 1 5 10 15
 Arg Arg Arg Arg Ala Gln Ala Ser Ser Phe Gly Trp Gly Ala Ala Glu
 20 25 30
 Leu Thr Ser Asp Ile Ser Ala Pro Phe Thr Arg Arg Asn Pro Gly Ala
 35 40 45
 Gly Ala Arg Ser Ala Gly Val Thr Met Thr Lys Ala Gly Ser Lys Gly

1297

| | | | | |
|---|-----|----|-----|-----|
| 50 | | 55 | | 60 |
| Gly Asn Leu Arg Asp Lys Leu Asp Gly Asn Glu Leu Asp Leu Ser Leu | | | | |
| 65 | | 70 | | 75 |
| | | | | 80 |
| Ser Asp Leu Asn Glu Val Pro Val Lys Glu Leu Ala Ala Leu Pro Lys | | | | |
| | 85 | | 90 | 95 |
| Ala Thr Ile Leu Asp Leu Ser Cys Asn Lys Leu Thr Thr Leu Pro Ser | | | | |
| | 100 | | 105 | 110 |
| Asp Phe Cys Gly Leu Thr His Leu Val Lys Leu Asp Leu Ser Lys Asn | | | | |
| | 115 | | 120 | 125 |
| Lys Leu Gln Gln Leu Pro Ala Asp Phe Gly Arg Leu Val Asn Leu Gln | | | | |
| | 130 | | 135 | 140 |
| His Leu Asp Leu Leu Asn Asn Lys Leu Val Thr Leu Pro Val Ser Phe | | | | |
| | 145 | | 150 | 155 |
| | | | | 160 |
| Ala Gln Leu Lys Asn Leu Lys Trp Leu Asp Leu Lys Asp Asn Pro Leu | | | | |
| | 165 | | 170 | 175 |
| Asp Pro Val Leu Ala Lys Val Ala Gly Asp Cys Leu Asp Glu Lys Gln | | | | |
| | 180 | | 185 | 190 |
| Cys Lys Gln Cys Ala Asn Lys Val Leu Gln His Met Lys Ala Val Gln | | | | |
| | 195 | | 200 | 205 |
| Ala Asp Gln Glu Arg Glu Arg Gln Arg Arg Leu Glu Val Glu Arg Glu | | | | |
| | 210 | | 215 | 220 |
| Ala Glu Lys Lys Arg Glu Ala Lys Gln Arg Ala Lys Glu Ala Gln Glu | | | | |
| | 225 | | 230 | 235 |
| | | | | 240 |
| Arg Glu Leu Arg Lys Arg Glu Lys Ala Glu Glu Lys Glu Arg Arg Arg | | | | |
| | 245 | | 250 | 255 |
| Lys Glu Tyr Asp Ala Leu Lys Ala Ala Lys Arg Glu Gln Glu Lys Lys | | | | |
| | 260 | | 265 | 270 |
| Pro Lys Lys Glu Ala Asn Gln Ala Pro Lys Ser Lys Ser Gly Ser Arg | | | | |
| | 275 | | 280 | 285 |
| Pro Arg Lys Pro Pro Pro Arg Lys His Thr Arg Ser Trp Ala Val Leu | | | | |
| | 290 | | 295 | 300 |
| Lys Leu Leu Leu Leu Leu Leu Leu Phe Gly Val Ala Gly Gly Leu Val | | | | |
| | 305 | | 310 | 315 |
| | | | | 320 |
| Ala Cys Arg Val Thr Glu Leu Gln Gln Gln Pro Leu Cys Thr Ser Val | | | | |

1298

| | | | | | |
|---|-----|--|-----|--|-----|
| | 325 | | 330 | | 335 |
| Asn Thr Ile Tyr Asp Asn Ala Val Gln Gly Leu Arg Arg His Glu Ile | | | | | |
| | 340 | | 345 | | 350 |
| Leu Gln Trp Val Leu Gln Thr Asp Ser Gln Gln | | | | | |
| | 355 | | 360 | | |

<210> 1272

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1272

| |
|---|
| Gly Leu Val Met Ala Pro Ile Ala Cys Leu Leu Pro Ala Phe Ser Ser |
| 1 5 10 15 |

| |
|---|
| Ala Pro Glu Ala Met His Pro Trp Glu Leu Phe Val Lys Tyr Tyr His |
| 20 25 30 |

| |
|---|
| Ala Lys Asn Gly Arg Ala Tyr Val Glu Ser Pro Ala Arg Lys Leu Ser |
| 35 40 45 |

| |
|---|
| Gln Ser Phe Ala Leu Pro Val Thr Gly Gly Thr Val Val Thr Pro Lys |
| 50 55 60 |

| |
|---|
| Gln Ser Leu Leu Thr Ala Ile His Met Val Leu Thr Glu His Asp Pro |
| 65 70 75 80 |

| |
|---|
| Phe Lys Arg Ser Ala Asp Ser Glu Leu Lys Ala Leu Val Cys Met Ala |
| 85 90 95 |

| |
|---|
| Leu Asn Glu Pro Ala Ser Gly Val Leu Gly Glu Pro His Leu Gln Xaa |
| 100 105 110 |

1299

Arg Val Thr Xaa Arg Ala Ser Leu Pro Ala Leu Xaa Leu His Gly Thr
 115 120 125

His Arg Leu Leu Lys Ile Ala Ser Thr Cys Ser Val Ala Ser Thr Thr
 130 135 140

<210> 1273

<211> 252

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1273

Ala Arg Ala Pro Pro Arg Pro Arg Arg Ala Gly Arg Cys Gln Leu Pro
 1 5 10 15

Gln Arg Pro Ala Glu Ala Arg Cys Met Leu Ser Arg Cys Arg Ser Xaa
 20 25 30

Leu Leu His Val Leu Gly Leu Ser Phe Leu Leu Gln Thr Arg Arg Pro
 35 40 45

Ile Leu Leu Cys Ser Pro Arg Leu Met Lys Pro Leu Val Val Phe Val
 50 55 60

Leu Gly Gly Pro Gly Ala Gly Lys Gly Thr Gln Cys Ala Arg Ile Val
 65 70 75 80

Glu Lys Tyr Gly Tyr Thr His Leu Ser Ala Gly Glu Leu Leu Arg Asp
 85 90 95

Glu Arg Lys Asn Pro Asp Ser Gln Tyr Gly Glu Leu Ile Glu Lys Tyr
 100 105 110

Ile Lys Glu Gly Lys Ile Val Pro Val Glu Ile Thr Ile Ser Leu Leu
 115 120 125

Lys Arg Glu Met Asp Gln Thr Met Ala Ala Asn Ala Gln Lys Asn Lys
 130 135 140

Phe Leu Ile Asp Gly Phe Pro Arg Asn Gln Asp Asn Leu Gln Gly Trp

1300

145 150 155 160
 Asn Lys Thr Met Asp Gly Lys Ala Asp Val Ser Phe Val Leu Phe Phe
 165 170 175
 Asp Cys Asn Asn Glu Ile Cys Ile Glu Arg Cys Leu Glu Arg Gly Lys
 180 185 190
 Ser Ser Gly Arg Ser Asp Asp Asn Arg Glu Ser Leu Glu Lys Arg Ile
 195 200 205
 Gln Thr Tyr Leu Gln Ser Thr Lys Pro Ile Ile Asp Leu Tyr Glu Glu
 210 215 220
 Met Gly Lys Val Lys Lys Ile Asp Ala Ser Lys Ser Val Asp Glu Val
 225 230 235 240
 Phe Asp Glu Val Val Gln Ile Phe Asp Lys Glu Gly
 245 250

<210> 1274

<211> 425

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1274

Ala Ser Glu Arg Ser Glu Ala Arg Arg Lys Leu Arg Glu Cys Asp Gly
 1 5 10 15
 Leu Val Asp Ala Leu Ile Phe Ile Val Gln Ala Glu Ile Gly Gln Lys
 20 25 30
 Asp Ser Xaa Ser Lys Leu Val Glu Asn Cys Val Cys Leu Leu Arg Asn
 35 40 45
 Leu Ser Tyr Gln Val His Arg Glu Ile Pro Gln Ala Glu Arg Tyr Gln
 50 55 60
 Glu Ala Ala Pro Asn Val Ala Asn Asn Thr Gly Pro His Ala Ala Ser
 65 70 75 80
 Cys Phe Gly Ala Lys Lys Gly Lys Gly Lys Lys Pro Ile Glu Asp Pro
 85 90 95

1301

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asn | Asp | Thr | Val | Asp | Phe | Pro | Lys | Arg | Thr | Ser | Pro | Ala | Arg | Gly | 100 | 105 | 110 | |
| Tyr | Glu | Leu | Leu | Phe | Gln | Pro | Glu | Val | Val | Arg | Ile | Tyr | Ile | Ser | Leu | 115 | 120 | 125 | |
| Leu | Lys | Glu | Ser | Lys | Thr | Pro | Ala | Ile | Leu | Glu | Ala | Ser | Ala | Gly | Ala | 130 | 135 | 140 | |
| Ile | Gln | Asn | Leu | Cys | Ala | Gly | Arg | Trp | Thr | Tyr | Gly | Arg | Tyr | Ile | Arg | 145 | 150 | 155 | 160 |
| Ser | Ala | Leu | Arg | Gln | Glu | Lys | Ala | Leu | Ser | Ala | Ile | Ala | Asp | Leu | Leu | 165 | 170 | 175 | |
| Thr | Asn | Glu | His | Glu | Arg | Val | Val | Lys | Ala | Ala | Ser | Gly | Ala | Leu | Arg | 180 | 185 | 190 | |
| Asn | Leu | Ala | Val | Asp | Ala | Arg | Asn | Lys | Glu | Leu | Ile | Gly | Lys | His | Ala | 195 | 200 | 205 | |
| Ile | Pro | Asn | Leu | Val | Lys | Asn | Leu | Pro | Gly | Gly | Gln | Gln | Asn | Ser | Ser | 210 | 215 | 220 | |
| Trp | Asn | Phe | Ser | Glu | Asp | Thr | Val | Ile | Ser | Ile | Leu | Asn | Thr | Ile | Asn | 225 | 230 | 235 | 240 |
| Glu | Val | Ile | Ala | Glu | Asn | Leu | Glu | Ala | Ala | Lys | Lys | Leu | Arg | Glu | Thr | 245 | 250 | 255 | |
| Gln | Gly | Ile | Glu | Lys | Leu | Val | Leu | Ile | Asn | Lys | Ser | Gly | Asn | Arg | Ser | 260 | 265 | 270 | |
| Glu | Lys | Glu | Val | Arg | Ala | Ala | Ala | Leu | Val | Leu | Gln | Thr | Ile | Trp | Gly | 275 | 280 | 285 | |
| Tyr | Lys | Glu | Leu | Arg | Lys | Pro | Leu | Glu | Lys | Glu | Gly | Trp | Lys | Lys | Ser | 290 | 295 | 300 | |
| Asp | Phe | Gln | Val | Asn | Leu | Asn | Asn | Ala | Ser | Arg | Ser | Gln | Ser | Ser | His | 305 | 310 | 315 | 320 |
| Ser | Tyr | Asp | Asp | Ser | Thr | Leu | Pro | Leu | Ile | Asp | Arg | Asn | Gln | Lys | Ser | 325 | 330 | 335 | |
| Asp | Lys | Lys | Pro | Asp | Arg | Glu | Glu | Ile | Gln | Met | Ser | Asn | Met | Gly | Ser | 340 | 345 | 350 | |
| Asn | Thr | Lys | Ser | Leu | Asp | Asn | Asn | Tyr | Ser | Thr | Pro | Asn | Glu | Arg | Gly | 355 | 360 | 365 | |

1302

Asp His Asn Arg Thr Leu Asp Arg Ser Gly Asp Leu Gly Asp Met Glu
 370 375 380

Pro Leu Lys Gly Thr Thr Pro Leu Met Gln Asp Glu Gly Gln Glu Ser
 385 390 395 400

Leu Glu Glu Glu Leu Asp Val Leu Val Leu Asp Asp Glu Gly Gly Gln
 405 410 415

Val Ser Tyr Pro Ser Met Gln Lys Ile
 420 425

<210> 1275

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1275

Phe Phe Phe Ser Ser Leu Phe Ser Leu Xaa Phe Leu Lys Lys Gly Lys
 1 5 10 15

Lys Cys Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu
 20 25 30

Ser Gly Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val
 35 40 45

Cys Thr Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Thr Leu Pro
 50 55 60

Val Glu Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met Met
 65 70 75 80

Phe Ile Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn Asp
 85 90 95

Ile Phe Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala
 100 105 110

<210> 1276

<211> 766

<212> PRT

<213> Homo sapiens

Gly Asp Phe Ile Met Leu Arg Ala Gly Arg Arg Ala Pro Leu Pro Ser
1 5 10 15

Pro Pro Ser Leu Asp Ser Pro Gly Pro Gln Leu Met Pro Ser Pro Arg
20 25 30

Pro Val Leu Leu Arg Gly Ala Arg Ala Ala Leu Leu Leu Leu Leu Pro
35 40 45

Pro Arg Leu Leu Ala Arg Pro Ser Leu Leu Leu Arg Arg Ser Leu Ser
50 55 60

Ala Ala Ser Cys Ala Pro Ile Ser Leu Pro Ala Ala Ala Ser Arg Ser
65 70 75 80

Ser Met Asp Gly Ala Gly Ala Glu Glu Val Leu Ala Pro Leu Arg Leu
85 90 95

Ala Val Arg Gln Gln Gly Asp Leu Val Arg Lys Leu Lys Glu Asp Lys
100 105 110

Ala Pro Gln Val Asp Val Asp Lys Ala Val Ala Glu Leu Lys Ala Arg
115 120 125

Lys Arg Val Leu Glu Ala Lys Glu Leu Ala Leu Gln Pro Lys Asp Asp
130 135 140

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Ile Val Asp Arg Ala Lys Met Glu Asp Thr Leu Lys Arg Arg Phe Phe
145                               150                   155                   160

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Tyr Asp Gln Ala Phe Ala Ile Tyr Gly Gly Val Ser Gly Leu Tyr Asp
165 170 175

Phe Gly Pro Val Gly Cys Ala Leu Lys Asn Asn Ile Ile Gln Thr Trp
180 185 190

Arg Gln His Phe Ile Gln Glu Glu Gln Ile Leu Glu Ile Asp Cys Thr
195 200 205

Met Leu Thr Pro Glu Pro Val Leu Lys Thr Ser Gly His Val Asp Lys
210 215 220

Phe Ala Asp Phe Met Val Lys Asp Val Lys Asn Gly Glu Cys Phe Arg
225 230 235 240

Ala Asp His Leu Leu Lys Ala His Leu Gln Lys Leu Met Ser Asp Lys
245 250 255

1304

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Cys | Ser | Val | Glu | Lys | Lys | Ser | Glu | Met | Glu | Ser | Val | Leu | Ala | Gln | 260 | 265 | 270 | |
| Leu | Asp | Asn | Tyr | Gly | Gln | Gln | Glu | Leu | Ala | Asp | Leu | Phe | Val | Asn | Tyr | 275 | 280 | 285 | |
| Asn | Val | Lys | Ser | Pro | Ile | Thr | Gly | Asn | Asp | Leu | Ser | Pro | Pro | Val | Ser | 290 | 295 | 300 | |
| Phe | Asn | Leu | Met | Phe | Lys | Thr | Phe | Ile | Gly | Pro | Gly | Gly | Asn | Met | Pro | 305 | 310 | 315 | 320 |
| Gly | Tyr | Leu | Arg | Pro | Glu | Thr | Ala | Gln | Gly | Ile | Phe | Leu | Asn | Phe | Lys | 325 | 330 | 335 | |
| Arg | Leu | Leu | Glu | Phe | Asn | Gln | Gly | Lys | Leu | Pro | Phe | Ala | Ala | Ala | Gln | 340 | 345 | 350 | |
| Ile | Gly | Asn | Ser | Phe | Arg | Asn | Glu | Ile | Ser | Pro | Arg | Ser | Gly | Leu | Ile | 355 | 360 | 365 | |
| Arg | Val | Arg | Glu | Phe | Thr | Met | Ala | Glu | Ile | Glu | His | Phe | Val | Asp | Pro | 370 | 375 | 380 | |
| Ser | Glu | Lys | Asp | His | Pro | Lys | Phe | Gln | Asn | Val | Ala | Asp | Leu | His | Leu | 385 | 390 | 395 | 400 |
| Tyr | Leu | Tyr | Ser | Ala | Lys | Ala | Gln | Val | Ser | Gly | Gln | Ser | Ala | Arg | Lys | 405 | 410 | 415 | |
| Met | Arg | Leu | Gly | Asp | Ala | Val | Glu | Gln | Gly | Val | Ile | Asn | Asn | Thr | Val | 420 | 425 | 430 | |
| Leu | Gly | Tyr | Phe | Ile | Gly | Arg | Ile | Tyr | Leu | Tyr | Leu | Thr | Lys | Val | Gly | 435 | 440 | 445 | |
| Ile | Ser | Pro | Asp | Lys | Leu | Arg | Phe | Arg | Gln | His | Met | Glu | Asn | Glu | Met | 450 | 455 | 460 | |
| Ala | His | Tyr | Ala | Cys | Asp | Cys | Trp | Asp | Ala | Glu | Ser | Lys | Thr | Ser | Tyr | 465 | 470 | 475 | 480 |
| Gly | Trp | Ile | Glu | Ile | Val | Gly | Cys | Ala | Asp | Arg | Ser | Cys | Tyr | Asp | Leu | 485 | 490 | 495 | |
| Ser | Cys | His | Ala | Arg | Ala | Thr | Lys | Val | Pro | Leu | Val | Ala | Glu | Lys | Pro | 500 | 505 | 510 | |
| Leu | Lys | Glu | Pro | Lys | Thr | Val | Asn | Val | Val | Gln | Phe | Glu | Pro | Ser | Lys | 515 | 520 | 525 | |

1305

Gly Ala Ile Gly Lys Ala Tyr Lys Lys Asp Ala Lys Leu Val Met Glu
 530 535 540
 Tyr Leu Ala Ile Cys Asp Glu Cys Tyr Ile Thr Glu Met Glu Met Leu
 545 550 555 560
 Leu Asn Glu Lys Gly Glu Phe Thr Ile Glu Thr Glu Gly Lys Thr Phe
 565 570 575
 Gln Leu Thr Lys Asp Met Ile Asn Val Lys Arg Phe Gln Lys Thr Leu
 580 585 590
 Tyr Val Glu Glu Val Val Pro Asn Val Ile Glu Pro Ser Phe Gly Leu
 595 600 605
 Gly Arg Ile Met Tyr Thr Val Phe Glu His Thr Phe His Val Arg Glu
 610 615 620
 Gly Asp Glu Gln Arg Thr Phe Phe Ser Phe Pro Ala Val Val Ala Pro
 625 630 635 640
 Phe Lys Cys Ser Val Leu Pro Leu Ser Gln Asn Gln Glu Phe Met Pro
 645 650 655
 Phe Val Lys Glu Leu Ser Glu Ala Leu Thr Arg His Gly Val Ser His
 660 665 670
 Lys Val Asp Asp Ser Ser Gly Ser Ile Gly Arg Arg Tyr Ala Arg Thr
 675 680 685
 Asp Glu Ile Gly Val Ala Phe Gly Val Thr Ile Asp Phe Asp Thr Val
 690 695 700
 Asn Lys Thr Pro His Thr Ala Thr Leu Arg Asp Arg Asp Ser Met Arg
 705 710 715 720
 Gln Ile Arg Ala Glu Ile Ser Glu Leu Pro Ser Ile Val Gln Asp Leu
 725 730 735
 Ala Asn Gly Asn Ile Thr Trp Ala Asp Val Glu Ala Arg Tyr Pro Leu
 740 745 750
 Phe Glu Gly Gln Glu Thr Gly Lys Lys Glu Thr Ile Glu Glu
 755 760 765

<210> 1277

<211> 386

<212> PRT

<213> Homo sapiens

1306

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1277

```

Leu Gly Ser Arg Gln Ala Ala Gly Thr Met Arg Gly Gln Arg Ser Leu
 1             5             10             15

Leu Leu Gly Pro Ala Arg Leu Cys Leu Arg Leu Leu Leu Leu Gly
      20             25             30

Tyr Arg Arg Arg Cys Pro Pro Leu Leu Arg Gly Leu Val Gln Arg Trp
      35             40             45

Arg Tyr Gly Lys Val Cys Leu Arg Ser Leu Leu Tyr Asn Ser Phe Gly
      50             55             60

Gly Ser Asp Thr Ala Val Asp Ala Ala Phe Xaa Pro Val Tyr Trp Leu
      65             70             75             80

Val Asp Asn Val Ile Arg Trp Phe Gly Val Val Phe Val Val Leu Val
      85             90             95

Ile Val Leu Thr Gly Ser Ile Val Ala Ile Ala Tyr Leu Cys Val Leu
      100            105            110

Pro Leu Ile Leu Arg Thr Tyr Ser Val Pro Arg Leu Cys Trp His Phe
      115            120            125

Phe Tyr Ser His Trp Asn Leu Ile Leu Ile Val Phe His Tyr Tyr Gln
      130            135            140

Ala Ile Thr Thr Pro Pro Gly Tyr Pro Pro Gln Gly Arg Asn Asp Ile
      145            150            155            160

Ala Thr Val Ser Ile Cys Lys Lys Cys Ile Tyr Pro Lys Pro Ala Arg
      165            170            175

Thr His His Cys Ser Ile Cys Asn Arg Cys Val Leu Lys Met Asp His
      180            185            190

His Cys Pro Trp Leu Asn Asn Cys Val Gly His Tyr Asn His Arg Tyr
      195            200            205

Phe Phe Ser Phe Cys Phe Phe Met Thr Leu Gly Cys Val Tyr Cys Ser
      210            215            220

Tyr Gly Ser Trp Asp Leu Phe Arg Glu Ala Tyr Ala Ala Ile Glu Lys
      225            230            235            240

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| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Met | Lys | Gln | Leu | Asp | Lys | Asn | Lys | Leu | Gln | Ala | Val | Ala | Asn | Gln | Thr | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Tyr | His | Gln | Thr | Pro | Pro | Pro | Thr | Phe | Ser | Phe | Arg | Glu | Arg | Met | Thr | |
| | | | | 260 | | | | | 265 | | | | | 270 | | |
| His | Lys | Ser | Leu | Val | Tyr | Leu | Trp | Phe | Leu | Cys | Ser | Ser | Val | Ala | Leu | |
| | | | | 275 | | | | | 280 | | | | | 285 | | |
| Ala | Leu | Gly | Ala | Leu | Thr | Val | Trp | His | Ala | Val | Leu | Ile | Ser | Arg | Gly | |
| | | | | 290 | | | | | 295 | | | | | 300 | | |
| Glu | Thr | Ser | Ile | Glu | Arg | His | Ile | Asn | Lys | Lys | Glu | Arg | Arg | Arg | Leu | |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | | |
| Gln | Ala | Lys | Gly | Arg | Val | Phe | Arg | Asn | Pro | Tyr | Asn | Tyr | Gly | Cys | Leu | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Asp | Asn | Trp | Lys | Val | Phe | Leu | Gly | Val | Asp | Thr | Gly | Arg | His | Trp | Leu | |
| | | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Arg | Val | Leu | Leu | Pro | Ser | Ser | His | Leu | Pro | His | Gly | Asn | Gly | Met | |
| | | | | 355 | | | | | 360 | | | | | 365 | | |
| Ser | Trp | Glu | Pro | Pro | Pro | Trp | Val | Thr | Ala | His | Ser | Ala | Ser | Val | Met | |
| | | | | 370 | | | | | 375 | | | | | 380 | | |
| Ala | Val | | | | | | | | | | | | | | | |
| 385 | | | | | | | | | | | | | | | | |

<400> 1278

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Lys | Ala | Ser | Ala | Glu | Thr | Pro | Arg | Pro | Gln | Pro | Val | Asp | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Lys | Ile | Leu | Glu | Lys | Leu | Leu | Thr | Arg | Phe | Pro | Gln | Cys | Asn | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Gln | Met | Thr | Asn | Ile | Leu | Gln | Gln | Ile | Lys | Thr | Ala | Arg | Thr | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Ala | Gly | Leu | Thr | Met | Glu | Glu | Leu | Ile | Gln | Leu | Val | Ala | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

1308

Leu Ala Glu His Glu Arg Val Ala Ala Ser Thr Gln Pro Leu Gly Arg
 65 70 75 80
 Ile Arg Ala Leu Phe Pro Ala Pro Leu Ala Gln Ile Ser Thr Pro Met
 85 90 95
 Phe Leu Pro Ser Ala Gln Val Ser Tyr Pro Gly Arg Ser Ser His Ala
 100 105 110
 Pro Ala Thr Cys Lys Leu Cys Leu Met Cys Gln Lys Leu Val Gln Pro
 115 120 125
 Ser Glu Leu His Pro Met Ala Cys Thr His Val Leu His Lys Glu Cys
 130 135 140
 Ile Lys Phe Trp Ala Gln Thr Asn Thr Asn Asp Thr Cys Pro Phe Cys
 145 150 155 160
 Pro Thr Leu Lys

<210> 1279

<211> 469

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1279

Pro Val Ala Val Gly Arg Val Arg Val Thr Ala Glu Gly Arg Xaa Met
 1 5 10 15
 Val Leu Gln Thr Thr Lys Gly Leu Arg Leu Leu Phe Asp Gly Asp Ala
 20 25 30
 His Leu Leu Met Ser Ile Pro Ser Pro Phe Arg Gly Arg Leu Cys Gly
 35 40 45
 Leu Cys Gly Asn Phe Asn Gly Asn Trp Ser Asp Asp Phe Val Leu Pro
 50 55 60

1309

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asn | Gly | Ser | Ala | Ala | Ser | Ser | Val | Glu | Thr | Phe | Gly | Ala | Ala | Trp | Arg | | |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 | | |
| Xaa | Pro | Gly | Ser | Ser | Lys | Gly | Cys | Gly | Glu | Gly | Cys | Gly | Pro | Gln | Gly | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Cys | Pro | Val | Cys | Leu | Ala | Glu | Glu | Thr | Ala | Pro | Tyr | Glu | Ser | Asn | Glu | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Ala | Cys | Gly | Gln | Leu | Arg | Asn | Pro | Gln | Gly | Pro | Phe | Ala | Thr | Cys | Gln | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ala | Val | Leu | Ser | Pro | Ser | Glu | Tyr | Phe | Arg | Gln | Cys | Val | Tyr | Asp | Leu | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Cys | Ala | Gln | Lys | Gly | Asp | Lys | Ala | Phe | Leu | Cys | Arg | Ser | Leu | Ala | Ala | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Tyr | Thr | Ala | Ala | Cys | Gln | Ala | Ala | Gly | Val | Ala | Val | Lys | Pro | Trp | Arg | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | |
| Thr | Asp | Ser | Phe | Cys | Pro | Leu | His | Cys | Pro | Ala | His | Ser | His | Tyr | Ser | | |
| | | | 180 | | | | | 185 | | | | | | 190 | | | |
| Ile | Cys | Thr | Arg | Thr | Cys | Gln | Gly | Ser | Cys | Ala | Ala | Leu | Ser | Gly | Leu | | |
| | | 195 | | | | | 200 | | | | | | 205 | | | | |
| Thr | Gly | Cys | Thr | Thr | Arg | Cys | Phe | Glu | Gly | Cys | Glu | Cys | Asp | Asp | Arg | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Phe | Leu | Leu | Ser | Gln | Gly | Val | Cys | Ile | Pro | Val | Gln | Asp | Cys | Gly | Cys | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Thr | His | Asn | Gly | Arg | Tyr | Leu | Pro | Val | Asn | Ser | Ser | Leu | Leu | Thr | Ser | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Asp | Cys | Ser | Glu | Arg | Cys | Ser | Cys | Ser | Ser | Ser | Ser | Gly | Leu | Thr | Cys | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Gln | Ala | Ala | Gly | Cys | Pro | Pro | Gly | Arg | Val | Cys | Glu | Val | Lys | Ala | Glu | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Ala | Arg | Asn | Cys | Trp | Ala | Thr | Arg | Gly | Leu | Cys | Val | Leu | Ser | Val | Gly | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Ala | Asn | Leu | Thr | Thr | Phe | Asp | Gly | Ala | Arg | Gly | Ala | Thr | Thr | Ser | Pro | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Gly | Val | Tyr | Glu | Leu | Ser | Ser | Arg | Cys | Pro | Gly | Leu | Gln | Asn | Thr | Ile | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |

1310

Pro Trp Tyr Arg Val Val Ala Glu Val Gln Ile Cys His Gly Lys Thr
 340 345 350
 Glu Ala Val Gly Gln Val His Ile Phe Phe Gln Asp Gly Met Val Thr
 355 360 365
 Leu Thr Pro Asn Lys Gly Val Trp Val Asn Gly Leu Arg Val Asp Leu
 370 375 380
 Pro Ala Glu Lys Leu Ala Ser Val Ser Val Ser Arg Thr Pro Asp Gly
 385 390 395 400
 Ser Leu Leu Val Arg Gln Lys Ala Gly Val Gln Val Trp Leu Gly Ala
 405 410 415
 Asn Gly Lys Val Ala Val Ile Val Ser Asn Asp His Ala Gly Lys Leu
 420 425 430
 Cys Gly Ala Cys Gly Asn Phe Asp Gly Asp Gln Thr Asn Asp Trp His
 435 440 445
 Asp Ser Gln Glu Lys Pro Ala Met Glu Lys Trp Arg Ala Gln Asp Phe
 450 455 460
 Ser Pro Cys Tyr Gly
 465

<210> 1280

<211> 223

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1280

Gly Pro Arg Ala Leu Trp Pro Pro Pro Glu Val Gly Trp Gly Cys Ser
 1 5 10 15

Pro Asn Pro Thr Leu Leu Pro Pro Leu Ser His Phe Pro Leu Leu Arg
 20 25 30

1311

Trp Gly Thr Asn Asn Lys Glu Leu Thr Leu Pro Ala Pro Asn Pro Pro
 35 40 45
 Pro Ala Pro Pro Cys Pro Pro Arg Phe Trp Phe His Phe Ser Ser Val
 50 55 60
 His Lys Leu Pro Leu Asp Ser Cys Val Val Phe Cys Ser Met Phe His
 65 70 75 80
 Ser Ser Thr Ser Val Ile Ala Ala Ala Thr Ser Ala Lys Cys Ser Ser
 85 90 95
 Ser Leu Pro Pro Val Leu Pro Thr Ile Pro Ser Pro Lys Ile Leu Phe
 100 105 110
 Val Gly Lys Arg Gly Trp Gly Met Ala Gly Trp Val Thr Asp Tyr Pro
 115 120 125
 Ser Pro Arg Glu Gly Gly Ala Leu Pro Leu Gly Cys Cys Ser Arg Val
 130 135 140
 Ser Lys Gly Ala Arg Ile Asp His Lys Gly Cys Arg Gly His Leu Leu
 145 150 155 160
 Pro Leu Phe Cys Trp Gly Gly Val Ala Met Ile Cys Pro Ser Leu Gly
 165 170 175
 Leu Pro Leu Trp Phe Pro Ile Cys Ser Tyr Leu Asn Lys Lys Asn Ile
 180 185 190
 Leu Phe Trp Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 195 200 205
 Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Gly Gly Ala Pro Pro Pro
 210 215 220

<210> 1281

<211> 37

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1281

Thr Gln Ser Lys Trp Arg Leu Glu Val Gln Cys Gly Lys Glu Lys Gln
 1 5 10 15

1312

Val Phe Ile Glu Ser Thr Asn Ser Thr Pro Phe Lys Asn Phe Xaa Gly
 20 25 30

Thr Gln Pro Lys Gly
 35

<210> 1282

<211> 458

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1282

Gly Pro Gln Arg Leu Ser Pro Gly Ala Met Leu Pro Ala Ala Thr Ala
 1 5 10 15

Ser Leu Leu Gly Pro Leu Leu Thr Ala Cys Ala Leu Leu Pro Phe Ala
 20 25 30

Gln Gly Gln Thr Pro Asn Tyr Thr Arg Pro Val Phe Leu Cys Gly Gly
 35 40 45

Asp Val Lys Gly Glu Ser Gly Tyr Val Ala Ser Glu Gly Phe Pro Asn
 50 55 60

Leu Tyr Pro Pro Asn Lys Glu Cys Ile Trp Thr Ile Thr Val Pro Glu
 65 70 75 80

Gly Gln Thr Val Ser Leu Ser Phe Arg Val Phe Asp Leu Glu Leu His
 85 90 95

Pro Ala Cys Arg Tyr Asp Ala Leu Glu Val Phe Ala Gly Ser Gly Thr
 100 105 110

Ser Gly Gln Arg Leu Gly Arg Phe Cys Gly Thr Phe Arg Pro Ala Pro
 115 120 125

Leu Val Ala Pro Gly Asn Gln Val Thr Leu Arg Met Thr Thr Asp Glu
 130 135 140

Gly Thr Gly Gly Arg Gly Phe Leu Leu Trp Tyr Ser Gly Arg Ala Thr
 145 150 155 160

Ser Gly Thr Glu His Gln Phe Cys Gly Gly Arg Leu Glu Lys Ala Gln

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 165 | | | | | | | | 170 | | | | | 175 | | | | |
| Gly | Thr | Leu | Thr | Thr | Pro | Asn | Trp | Pro | Glu | Ser | Asp | Tyr | Pro | Pro | Gly | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ile | Ser | Cys | Ser | Trp | His | Ile | Ile | Ala | Pro | Pro | Asp | Gln | Val | Ile | Ala | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Thr | Phe | Glu | Lys | Phe | Asp | Leu | Glu | Pro | Asp | Thr | Tyr | Cys | Arg | Tyr | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Asp | Ser | Val | Ser | Val | Phe | Asn | Gly | Ala | Val | Ser | Asp | Asp | Ser | Arg | Arg | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Leu | Gly | Lys | Phe | Cys | Gly | Asp | Ala | Xaa | Pro | Gly | Ser | Ile | Ser | Ser | Glu | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Gly | Asn | Glu | Leu | Leu | Val | Gln | Phe | Val | Ser | Asp | Leu | Ser | Val | Thr | Ala | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Asp | Gly | Phe | Ser | Ala | Ser | Tyr | Lys | Thr | Leu | Pro | Arg | Gly | Thr | Ala | Lys | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Glu | Gly | Gln | Gly | Pro | Gly | Pro | Lys | Arg | Gly | Thr | Glu | Pro | Lys | Val | Lys | | |
| | | 290 | | | | 295 | | | | | 300 | | | | | | |
| Leu | Pro | Pro | Lys | Ser | Gln | Pro | Pro | Glu | Lys | Thr | Glu | Glu | Ser | Pro | Ser | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Ala | Pro | Asp | Ala | Pro | Thr | Cys | Pro | Lys | Gln | Cys | Arg | Arg | Thr | Gly | Thr | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Leu | Gln | Ser | Asn | Phe | Cys | Ala | Ser | Ser | Leu | Val | Val | Thr | Ala | Thr | Val | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Lys | Ser | Met | Val | Arg | Glu | Pro | Gly | Glu | Gly | Leu | Ala | Val | Thr | Val | Ser | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Leu | Ile | Gly | Ala | Tyr | Lys | Thr | Gly | Gly | Leu | Asp | Leu | Pro | Ser | Pro | Pro | | |
| | | 370 | | | | 375 | | | | | 380 | | | | | | |
| Thr | Gly | Ala | Ser | Leu | Lys | Phe | Tyr | Val | Pro | Cys | Lys | Gln | Cys | Pro | Pro | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Met | Lys | Lys | Gly | Val | Ser | Tyr | Leu | Leu | Met | Gly | Gln | Val | Glu | Glu | Asn | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Arg | Gly | Pro | Val | Leu | Pro | Pro | Glu | Ser | Phe | Val | Val | Leu | His | Arg | Pro | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Asn | Gln | Asp | Gln | Ile | Leu | Thr | Asn | Leu | Ser | Lys | Arg | Lys | Cys | Pro | Ser | | |

1314

435 440 445
 Gln Pro Val Arg Ala Ala Ala Ser Gln Asp
 450 455

<210> 1283
 <211> 229
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (45)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (154)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (155)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1283
 Cys Arg Ala Pro Leu Gly Ala Gly Leu Ser Pro Ala Val Arg Arg Gln
 1 5 10 15
 Glu Pro Pro Phe Pro Leu Gly Val Thr Arg Gly Trp Gly Arg Trp Pro
 20 25 30
 Ile Gln Lys Arg Arg Glu Gly Ala Arg Pro Val Pro Xaa Ser Glu Arg
 35 40 45
 Ser Gln Glu Asp Gly Arg Gly Pro Ala Ala Arg Ser Ser Gly Thr Leu
 50 55 60
 Trp Arg Ile Arg Thr Arg Leu Ser Leu Cys Arg Asp Pro Glu Pro Pro
 65 70 75 80
 Pro Pro Leu Cys Leu Leu Arg Val Ser Leu Leu Cys Ala Leu Arg Ala
 85 90 95
 Gly Gly Arg Gly Ser Arg Trp Gly Glu Asp Gly Ala Arg Leu Leu Leu
 100 105 110
 Leu Pro Pro Ala Arg Ala Ala Gly Asn Gly Glu Ala Glu Pro Ser Gly
 115 120 125

1315

Gly Pro Ser Tyr Ala Gly Arg Met Leu Glu Ser Ser Gly Cys Lys Ala
 130 135 140
 Leu Lys Glu Gly Val Leu Glu Lys Arg Xaa Xaa Gly Cys Cys Ser Ser
 145 150 155 160
 Gly Arg Lys Ser Val Ala Ser Ser Pro Arg Lys Gly Cys Cys Leu Ser
 165 170 175
 Arg Pro Ser Ser Cys Asn Thr Ser Ser Ser Asn Ser Ser Ser Ser
 180 185 190
 Ser Ser Asn Asn Ser Pro Gly Arg Gly Arg Pro Ser Arg Pro Asn Pro
 195 200 205
 Val Ala Pro Leu Ser Pro Ala Ser Ser Arg Arg Ser Ser Ser Arg Asn
 210 215 220
 Cys Thr Ser Pro Thr
 225

<210> 1284

<211> 390

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1284

Thr Ser Val Ala Ala Ala Ala Arg Gly Arg Ala Gly Cys Pro Leu
 1 5 10 15
 Thr Ala Ala Ser Ala Ala Arg Phe Lys Met Ala Ala Cys Ser His Ser
 20 25 30
 Phe Ser Ala Glu Arg Leu Leu Thr Phe Ile Val Phe Ser Ala Arg Phe
 35 40 45
 Asp Arg Leu Xaa Pro Ala Ala Leu Ser Gly Ile Phe Tyr Gln Ala Glu
 50 55 60
 Met His Arg Thr Thr Arg Ile Lys Ile Thr Glu Leu Asn Pro His Leu
 65 70 75 80
 Met Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile

1316

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
| Glu | Cys | Leu | His | Ser | Phe | Cys | Lys | Thr | Cys | Ile | Val | Arg | Tyr | Leu | Glu | | | | |
| 100 | | | | | 105 | | | | | 110 | | | | | | | | | |
| Thr | Ser | Lys | Tyr | Cys | Pro | Ile | Cys | Asp | Val | Gln | Val | His | Lys | Thr | Arg | | | | |
| 115 | | | | | 120 | | | | | 125 | | | | | | | | | |
| Pro | Leu | Leu | Asn | Ile | Arg | Ser | Asp | Lys | Thr | Leu | Gln | Asp | Ile | Val | Tyr | | | | |
| 130 | | | | | 135 | | | | | 140 | | | | | | | | | |
| Lys | Leu | Val | Pro | Gly | Leu | Phe | Lys | Asn | Glu | Met | Lys | Arg | Arg | Arg | Asp | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Phe | Tyr | Ala | Ala | His | Pro | Ser | Ala | Asp | Ala | Ala | Asn | Gly | Ser | Asn | Glu | | | | |
| 165 | | | | | 170 | | | | | 175 | | | | | | | | | |
| Asp | Arg | Gly | Glu | Val | Ala | Asp | Glu | Asp | Lys | Arg | Ile | Ile | Thr | Asp | Asp | | | | |
| 180 | | | | | 185 | | | | | 190 | | | | | | | | | |
| Glu | Ile | Ile | Ser | Leu | Ser | Ile | Glu | Phe | Phe | Asp | Gln | Asn | Arg | Leu | Asp | | | | |
| 195 | | | | | 200 | | | | | 205 | | | | | | | | | |
| Arg | Lys | Val | Asn | Lys | Asp | Lys | Glu | Lys | Ser | Lys | Glu | Glu | Val | Asn | Asp | | | | |
| 210 | | | | | 215 | | | | | 220 | | | | | | | | | |
| Lys | Arg | Tyr | Leu | Arg | Cys | Pro | Ala | Ala | Met | Thr | Val | Met | His | Leu | Arg | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | | |
| Lys | Phe | Leu | Arg | Ser | Lys | Met | Asp | Ile | Pro | Asn | Thr | Phe | Gln | Ile | Asp | | | | |
| 245 | | | | | 250 | | | | | 255 | | | | | | | | | |
| Val | Met | Tyr | Glu | Glu | Glu | Pro | Leu | Lys | Asp | Tyr | Tyr | Thr | Leu | Met | Asp | | | | |
| 260 | | | | | 265 | | | | | 270 | | | | | | | | | |
| Ile | Ala | Tyr | Ile | Tyr | Thr | Trp | Arg | Arg | Asn | Gly | Pro | Leu | Pro | Leu | Lys | | | | |
| 275 | | | | | 280 | | | | | 285 | | | | | | | | | |
| Tyr | Arg | Val | Arg | Pro | Thr | Cys | Lys | Arg | Met | Lys | Ile | Ser | His | Gln | Arg | | | | |
| 290 | | | | | 295 | | | | | 300 | | | | | | | | | |
| Asp | Gly | Leu | Thr | Asn | Ala | Gly | Glu | Leu | Glu | Ser | Asp | Ser | Gly | Ser | Asp | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | | |
| Lys | Ala | Asn | Ser | Pro | Ala | Gly | Gly | Ile | Pro | Ser | Thr | Ser | Ser | Cys | Leu | | | | |
| 325 | | | | | 330 | | | | | 335 | | | | | | | | | |
| Pro | Ser | Pro | Ser | Thr | Pro | Val | Gln | Ser | Pro | His | Pro | Gln | Phe | Pro | His | | | | |
| 340 | | | | | 345 | | | | | 350 | | | | | | | | | |
| Ile | Ser | Ser | Thr | Met | Asn | Gly | Thr | Ser | Asn | Ser | Pro | Ser | Gly | Asn | His | | | | |

1317

355 360 365
Gln Ser Ser Phe Ala Asn Arg Pro Arg Lys Ser Ser Val Asn Gly Ser
370 375 380
Ser Ala Thr Ser Ser Gly
385 390

<210> 1285
<211> 39
<212> PRT
<213> Homo sapiens

<400> 1285
His Ala Ser Ala Gly Ser Gln Leu Phe Glu Met His Glu Lys Leu Ser
1 5 10 15

Cys Met Ala Asn Ser Val Ile Lys Asn Leu Gln Ser Arg Trp Arg Ser
20 25 30

Pro Ser His Glu Asn Ser Ile
35

<210> 1286
<211> 453
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (286)
<223> Xaa equals any of the naturally occurring L-amino acids

1318

<400> 1286

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Ser | Val | Ile | Cys | Asp | Ser | Asn | Ala | Thr | Ala | Leu | Glu | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Leu | Pro | Leu | Ser | Leu | Pro | Gln | Pro | Ser | Ile | Pro | Ala | Ala | Val | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Ser | Ala | Pro | Pro | Xaa | Pro | His | Arg | Glu | Glu | Thr | Val | Thr | Ala | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Thr | Ser | Gln | Val | Ala | Gln | Gln | Pro | Pro | Ala | Ala | Ala | Ala | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Gln | Ala | Val | Ala | Gly | Pro | Ala | Pro | Arg | Leu | Ser | Pro | Ala | Val | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Lys | Thr | Ala | Gln | Cys | Pro | Ser | Leu | Ala | Leu | Trp | Gly | Ala | Lys | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Arg | Arg | Arg | Xaa | Lys | Val | Ala | Ala | Ala | Ala | Gln | Ala | Xaa | Lys | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Gln | Glu | Glu | Arg | Ser | Gln | Gln | Gln | Asp | Asp | Ile | Glu | Glu | Leu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Lys | Ala | Val | Gly | Met | Ser | Asn | Asp | Gly | Arg | Phe | Leu | Lys | Phe | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Glu | Ile | Gly | Arg | Gly | Ser | Phe | Lys | Thr | Val | Tyr | Lys | Gly | Leu | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Glu | Thr | Thr | Val | Glu | Val | Ala | Trp | Cys | Glu | Leu | Gln | Asp | Arg | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Thr | Lys | Ser | Glu | Arg | Gln | Arg | Phe | Lys | Glu | Glu | Ala | Glu | Met | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Gly | Leu | Gln | His | Pro | Asn | Ile | Val | Arg | Phe | Tyr | Asp | Ser | Trp | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Thr | Val | Lys | Gly | Lys | Lys | Cys | Ile | Val | Leu | Val | Thr | Glu | Leu | Met |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Ser | Gly | Thr | Leu | Lys | Thr | Tyr | Leu | Lys | Arg | Phe | Lys | Val | Met | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Ile | Lys | Val | Leu | Arg | Ser | Trp | Cys | Arg | Gln | Ile | Leu | Lys | Gly | Leu | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Phe | Leu | His | Thr | Arg | Thr | Pro | Pro | Ile | Ile | His | Arg | Asp | Leu | Lys | Cys |

1319

| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Asp Asn Ile Phe Ile Thr Gly Pro Thr Gly Ser Val Lys Xaa Gly Asp | | |
| 275 | 280 | 285 |
| Leu Gly Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile | | |
| 290 | 295 | 300 |
| Gly Thr Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp | | |
| 305 | 310 | 315 |
| Glu Ser Val Asp Val Tyr Ala Phe Gly Met Cys Met Leu Glu Met Ala | | |
| 325 | 330 | 335 |
| Thr Ser Glu Tyr Pro Tyr Ser Glu Cys Gln Asn Ala Ala Gln Ile Tyr | | |
| 340 | 345 | 350 |
| Arg Arg Val Thr Ser Gly Val Lys Pro Ala Ser Phe Asp Lys Val Ala | | |
| 355 | 360 | 365 |
| Ile Pro Glu Val Lys Glu Ile Ile Glu Gly Cys Ile Arg Gln Asn Lys | | |
| 370 | 375 | 380 |
| Asp Glu Arg Tyr Ser Ile Lys Asp Leu Leu Asn His Ala Phe Phe Gln | | |
| 385 | 390 | 395 |
| Glu Glu Thr Gly Val Arg Val Glu Leu Ala Glu Glu Asp Asp Gly Glu | | |
| 405 | 410 | 415 |
| Lys Ile Ala Ile Lys Leu Trp Leu Arg Ile Glu Asp Ile Lys Lys Leu | | |
| 420 | 425 | 430 |
| Lys Gly Lys Tyr Lys Asp Lys Lys Lys Lys Lys Lys Lys Lys Lys | | |
| 435 | 440 | 445 |
| Asn Thr His Arg Ala | | |
| 450 | | |

<210> 1287

<211> 450

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1320

<221> SITE
 <222> (41)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (43)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (116)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (193)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (314)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (326)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (344)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1287
 Ala Ala Glu Val Leu Cys Pro Ser Cys Phe Pro Ile Ser Pro Ala Pro
 1 5 10 15
 Trp Met Thr Val Gly Pro Ala Ser Ala Leu Phe Pro Cys Gln Thr Pro
 20 25 30
 Xaa Phe Pro Trp Thr Glu Trp Asn Xaa Trp Xaa Phe Thr Ala His Val
 35 40 45
 Leu Ser Gln Lys Phe Glu Lys Glu Leu Ser Lys Val Arg Glu Tyr Val
 50 55 60
 Gln Leu Ile Ser Val Tyr Glu Lys Lys Leu Leu Asn Leu Thr Val Arg
 65 70 75 80
 Ile Asp Ile Met Glu Lys Asp Thr Ile Ser Tyr Thr Glu Leu Asp Phe

1321

| 85 | | | | | 90 | | | | | 95 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Ile | Lys | Val | Glu | Val | Lys | Glu | Met | Glu | Lys | Leu | Val | Ile | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Lys | Glu | Xaa | Phe | Gly | Gly | Ser | Ser | Glu | Ile | Val | Asp | Gln | Leu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Glu | Ile | Arg | Asn | Met | Thr | Leu | Leu | Val | Glu | Lys | Leu | Glu | Thr | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Lys | Asn | Asn | Val | Leu | Ala | Ile | Arg | Arg | Glu | Ile | Val | Ala | Leu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Lys | Leu | Lys | Glu | Cys | Glu | Ala | Ser | Lys | Asp | Gln | Asn | Thr | Pro | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | His | Pro | Pro | Pro | Thr | Pro | Gly | Ser | Cys | Gly | His | Gly | Gly | Val | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Xaa | Ile | Ser | Lys | Pro | Ser | Val | Val | Gln | Leu | Asn | Trp | Arg | Gly | Phe | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Leu | Tyr | Gly | Ala | Trp | Gly | Arg | Asp | Tyr | Ser | Pro | Gln | His | Pro | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Gly | Leu | Tyr | Trp | Val | Ala | Pro | Leu | Asn | Thr | Asp | Gly | Arg | Leu | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Tyr | Tyr | Arg | Leu | Tyr | Asn | Thr | Leu | Asp | Asp | Leu | Leu | Leu | Tyr | Ile |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Asn | Ala | Arg | Glu | Leu | Arg | Ile | Thr | Tyr | Gly | Gln | Gly | Ser | Gly | Thr | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Tyr | Asn | Asn | Asn | Met | Tyr | Val | Asn | Met | Tyr | Asn | Thr | Gly | Asn | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Arg | Val | Asn | Leu | Thr | Thr | Asn | Thr | Ile | Ala | Val | Thr | Gln | Thr | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Asn | Ala | Ala | Tyr | Asn | Asn | Arg | Phe | Xaa | Tyr | Ala | Asn | Val | Ala | Trp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gln | Asp | Ile | Asp | Phe | Xaa | Val | Asp | Glu | Asn | Gly | Leu | Trp | Val | Ile | Tyr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ser | Thr | Glu | Ala | Ser | Thr | Gly | Xaa | Met | Val | Ile | Ser | Lys | Leu | Asn | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Thr | Leu | Gln | Val | Leu | Asn | Thr | Trp | Tyr | Thr | Lys | Gln | Tyr | Lys | Pro |

1322

355 360 365
 Ser Ala Ser Asn Ala Phe Met Val Cys Gly Val Leu Tyr Ala Thr Arg
 370 375 380
 Thr Met Asn Thr Arg Thr Glu Glu Ile Phe Tyr Tyr Tyr Asp Thr Asn
 385 390 395 400
 Thr Gly Lys Glu Gly Lys Leu Asp Ile Val Met His Lys Met Gln Glu
 405 410 415
 Lys Val Gln Ser Ile Asn Tyr Asn Pro Phe Asp Gln Lys Leu Tyr Val
 420 425 430
 Tyr Asn Asp Gly Tyr Leu Leu Asn Tyr Asp Leu Ser Val Leu Gln Lys
 435 440 445
 Pro Gln
 450

<210> 1288
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 1288
 Leu Gln Gln Ala Leu Pro Asn Asn Gly Leu Leu Phe Thr Trp Thr Leu
 1 5 10 15
 Ser Lys Glu Gly Gly Arg Glu Gly Gln Ser Gly Val Ser Phe Gln His
 20 25 30
 Ser Ser Gln Lys Gly Glu Arg Phe Ser Gly Trp Cys His Ala Ile Gly
 35 40 45
 Ile Lys Gln Glu Ala His Gly Trp Leu Leu Asn Glu Glu Gln Asn Leu
 50 55 60
 Gly Ala Leu Trp Leu Thr Thr Ala Ile Cys Gly Ala Gly Thr His Thr
 65 70 75 80
 Ser Arg Gln Leu Gln Phe Cys Thr Phe Ser Leu Leu Asp Ser Lys Ser
 85 90 95
 Arg Cys Cys Leu Ala Ala Leu Arg Gly His Ser Leu Leu Arg Arg Ala
 100 105 110
 Leu Gln Ser Pro Ala Pro Gly Leu Gly Glu Trp Met Arg Leu Leu Pro
 115 120 125

1323

Tyr Asp Thr Cys Gln Asp Ala Leu Pro Pro Pro Leu Lys Val Gly Pro
 130 135 140

Gly Gln His Cys Ser Leu Leu Ser Ala Phe Ser Gly Leu Arg Ser Gln
 145 150 155 160

Tyr Glu Leu Pro

<210> 1289
 <211> 40
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (6)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (30)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1289
 Trp Met Ser Glu Tyr Xaa Gln Trp Val Phe Leu Ile Ser Leu Arg Ile
 1 5 10 15

Cys Leu Arg Val His Tyr Gln Gly Ile Ser Gly Thr Arg Xaa His Ser
 20 25 30

Leu His Gln Phe Leu Arg Val Leu
 35 40

<210> 1290
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 1290
 Asp Ile Met Glu Ser Gly Phe Thr Ser Lys Asp Thr Tyr Leu Ser His
 1 5 10 15

Phe Asn Pro Arg Asp Tyr Leu Glu Lys Tyr Tyr Lys Phe Gly Ser Arg
 20 25 30

1324

His Ser Ala Glu Ser Gln Ile Leu Lys His Leu Leu Lys Asn Leu Phe
 35 40 45
 Lys Ile Phe Cys Leu Asp Gly Val Lys Gly Asp Leu Leu Ile Asp Ile
 50 55 60
 Gly Ser Gly Pro Thr Ile Tyr Gln Leu Leu Ser Ala Cys Glu Ser Phe
 65 70 75 80
 Lys Glu Ile Val Val Thr Asp Tyr Ser Asp Gln Asn Leu Gln Glu Leu
 85 90 95
 Glu Lys Trp Leu Lys Lys Glu Pro Glu Ala Phe Asp Trp Ser Pro Val
 100 105 110
 Val Thr Tyr Val Cys Asp Leu Glu Gly Asn Arg Val Lys Gly Pro Glu
 115 120 125
 Lys Glu Glu Lys Leu Arg Gln Ala Val Lys Gln Val Leu Lys Cys Asp
 130 135 140
 Val Thr Gln Ser Gln Pro Leu Gly Ala Val Pro Leu Pro Pro Ala Asp
 145 150 155 160
 Cys Val Leu Ser Thr Leu Cys Leu Asp Ala Ala Cys Pro Asp Leu Pro
 165 170 175
 Thr Tyr Cys Arg Ala Leu Arg Asn Leu Gly Ser Leu Leu Lys Pro Gly
 180 185 190
 Gly Phe Leu Val Ile Met Asp Ala Leu Lys Ser Ser Tyr Tyr Met Ile
 195 200 205
 Gly Glu Gln Lys Phe Ser Ser Leu Pro Leu Gly Arg Glu Ala Val Glu
 210 215 220
 Ala Ala Val Lys Glu Ala Gly Tyr Thr Ile Glu Trp Phe Glu Val Ile
 225 230 235 240
 Ser Gln Ser Tyr Ser Ser Thr Met Ala Asn Asn Glu Gly Leu Phe Ser
 245 250 255
 Leu Val Ala Arg Lys Leu Ser Arg Pro Leu
 260 265

<210> 1291

<211> 112

<212> PRT

<213> Homo sapiens

1325

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1291

Cys Gly Ser Thr Ile Leu Gln Gly Pro Gln Lys Ala Leu Arg Arg Gly
 1 5 10 15

Leu Gly Glu Val Gly Asp Gln Gly Lys Ser Arg Gln Arg Ala Ser Lys
 20 25 30

Arg Leu Phe Ala Ser Lys Ala Leu Arg Gly His Leu Arg Pro Val Arg
 35 40 45

Gly Gln Gln Pro Gly Arg Xaa Gly Ser Asp Glu Asn Glu Glu Ser Ser
 50 55 60

Val Val Asp Tyr Val Glu Val Thr Val Gly Glu Glu Asp Ala Ile Ser
 65 70 75 80

Asp Arg Ser Asp Ser Trp Ser Gln Ala Ala Ala Glu Gly Val Ser Glu
 85 90 95

Leu Ala Glu Ser Asp Ser Asp Cys Val Pro Ala Glu Ala Gly Gln Ala
 100 105 110

<210> 1292

<211> 217

<212> PRT

<213> Homo sapiens

<400> 1292

Gly Ser Thr His Ala Ser Gly Thr Met Arg Ala Ala Ala Ile Ser Thr
 1 5 10 15

Pro Lys Leu Asp Lys Met Pro Gly Met Phe Phe Ser Ala Asn Pro Lys
 20 25 30

Glu Leu Lys Gly Thr Thr His Ser Leu Leu Asp Asp Lys Met Gln Lys
 35 40 45

Arg Arg Pro Lys Thr Phe Gly Met Asp Met Lys Ala Tyr Leu Arg Ser
 50 55 60

1326

Met Ile Pro His Leu Glu Ser Gly Met Lys Ser Ser Lys Ser Lys Asp
 65 70 75 80
 Val Leu Ser Ala Ala Glu Val Met Gln Trp Ser Gln Ser Leu Glu Lys
 85 90 95
 Leu Leu Ala Asn Gln Thr Gly Gln Asn Val Phe Gly Ser Phe Leu Lys
 100 105 110
 Ser Glu Phe Ser Glu Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp
 115 120 125
 Tyr Lys Lys Thr Glu Ser Asp Leu Leu Pro Cys Lys Ala Glu Glu Ile
 130 135 140
 Tyr Lys Ala Phe Val His Ser Asp Ala Ala Lys Gln Ile Asn Ile Asp
 145 150 155 160
 Phe Arg Thr Arg Glu Ser Thr Ala Lys Lys Ile Lys Ala Pro Thr Pro
 165 170 175
 Thr Cys Phe Asp Glu Ala Gln Lys Val Ile Tyr Thr Leu Met Glu Lys
 180 185 190
 Asp Ser Tyr Pro Arg Phe Leu Lys Ser Asp Ile Tyr Leu Asn Leu Leu
 195 200 205
 Asn Asp Leu Gln Ala Asn Ser Leu Lys
 210 215

<210> 1293

<211> 235

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (229)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1293

Leu His Leu Leu Ala Val Leu Glu Lys Met Ile Ser Gln Gly Asn Asn
 1 5 10 15
 Asn Lys Asn Gly Lys Asn Glu Thr Gly Asn Asn Asn Asn Lys Asp Gly
 20 25 30
 Ser Asn His Lys Ala Glu Ser Gly Ala Leu Ile Glu Ala Ala Lys Ser
 35 40 45

1327

Lys Ile His Gln Tyr Lys Val Arg Ala Tyr Ile Gln Met Lys Ser Leu
 50 55 60
 Lys Ala Cys Lys Arg Glu Ile Lys Ser Val Met Asn Thr Ala Gly Asn
 65 70 75 80
 Ser Ala Pro Ser Leu Phe Leu Lys Ser Asn Phe Glu Tyr Leu Arg Gly
 85 90 95
 Asn Tyr Arg Lys Ala Val Lys Leu Leu Asn Ser Ser Asn Ile Ala Glu
 100 105 110
 His Pro Gly Phe Met Lys Thr Gly Glu Cys Leu Arg Cys Met Phe Trp
 115 120 125
 Asn Asn Leu Gly Cys Ile His Phe Ala Met Ser Lys His Asn Leu Gly
 130 135 140
 Ile Phe Tyr Phe Lys Lys Ala Leu Gln Glu Asn Asp Asn Val Cys Ala
 145 150 155 160
 Gln Leu Ser Ala Gly Ser Thr Asp Pro Gly Lys Lys Phe Ser Gly Arg
 165 170 175
 Pro Met Cys Thr Leu Leu Thr Asn Lys Arg Tyr Glu Leu Leu Tyr Asn
 180 185 190
 Cys Gly Ile Gln Leu Leu His Ile Gly Arg Pro Leu Ala Ala Phe Glu
 195 200 205
 Cys Leu Ile Glu Ala Val Gln Val Tyr His Ala Asn Pro Arg Leu Trp
 210 215 220
 Leu Arg Leu Ala Xaa Met Leu His Cys Cys Gln
 225 230 235

<210> 1294

<211> 275

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1328

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1294

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Gly | Ala | Arg | Gly | Arg | Ala | Leu | Pro | Ala | Ser | Gly | Lys | Ala | Gly |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Arg | Ala | Arg | Gly | Ser | Ala | Xaa | Gly | Ser | Ala | Ala | Arg | Gly | His | Trp | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Arg | Phe | Pro | Ala | Pro | Arg | Gly | Ser | His | Leu | Pro | Ala | Arg | Arg |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Xaa | Xaa | Gly | Arg | Val | Ser | Thr | Pro | Ile | Leu | Arg | Pro | Val | Ser | Ser | Ile |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| Pro | Leu | Ala | Leu | Ser | Arg | Glu | Ser | Arg | Thr | Ala | Glu | Glu | Ser | Ser | Leu |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Pro | Gln | Pro | Gln | Val | Gly | Leu | Val | His | Ile | Met | Thr | Ser | Phe | Glu |
| | | | | 85 | | | | | 90 | | | | | | 95 |
| Asp | Ala | Asp | Thr | Glu | Glu | Thr | Val | Thr | Cys | Leu | Gln | Met | Thr | Val | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Pro | Gly | Gln | Leu | Gln | Cys | Gly | Ile | Phe | Gln | Ser | Ile | Ser | Phe | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Glu | Lys | Leu | Pro | Ser | Ser | Glu | Val | Val | Lys | Phe | Gly | Arg | Asn | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Ile | Cys | His | Tyr | Thr | Phe | Gln | Asp | Lys | Gln | Val | Ser | Arg | Val | Gln |
| | 145 | | | | | 150 | | | | 155 | | | | | 160 |
| Phe | Ser | Leu | Gln | Leu | Phe | Lys | Lys | Phe | Asn | Ser | Ser | Val | Leu | Ser | Phe |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Glu | Ile | Lys | Asn | Met | Ser | Lys | Lys | Thr | Asn | Leu | Ile | Val | Asp | Ser | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Leu | Gly | Tyr | Leu | Asn | Lys | Met | Asp | Leu | Pro | Tyr | Arg | Cys | Met | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Phe | Gly | Glu | Tyr | Gln | Phe | Leu | Met | Glu | Lys | Glu | Asp | Gly | Glu | Ser |
| | 210 | | | | | 215 | | | | | | 220 | | | |

1329

Leu Glu Phe Phe Glu Thr Gln Phe Ile Leu Ser Pro Arg Ser Leu Leu
 225 230 235 240

Gln Glu Asn Asn Trp Pro Pro His Arg Pro Ile Pro Glu Tyr Gly Thr
 245 250 255

Tyr Ser Leu Cys Ser Ser Gln Ser Ser Ser Pro Thr Glu Met Asp Glu
 260 265 270

Asn Glu Ser
 275

<210> 1295

<211> 677

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1295

Met Thr Arg Leu Pro Lys Leu Trp Ala Arg Pro Ala Gly Lys Ala Leu
 1 5 10 15

Val Ser Pro Val Val Gln Asn Ile Thr Ser Pro Asp Glu Asp Gly Ile
 20 25 30

Ser Pro Leu Gly Trp Leu Leu Asp Gln Tyr Leu Glu Cys Gln Glu Ala
 35 40 45

Val Phe Asn Pro Gln Ser Arg Gly Pro Ala Phe Phe Ser Arg Val Arg
 50 55 60

Arg Leu Thr His Leu Leu Val His Val Glu Pro Cys Glu Ala Pro Pro
 65 70 75 80

Pro Val Val Ala Thr Pro Arg Pro Lys Gly Arg Asn Arg Ser His Asp
 85 90 95

Trp Ser Ser Leu Ala Thr Arg Gly Leu Pro Ser Ser Ile Met Arg Asn
 100 105 110

1330

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Arg | Cys | Trp | Arg | Ala | Val | Val | Glu | Lys | Gln | Val | Asn | Asn | Phe | 115 | 120 | 125 | |
| Leu | Thr | Ser | Ser | Trp | Arg | Asp | Asp | Asp | Phe | Val | Pro | Arg | Tyr | Cys | Xaa | 130 | 135 | 140 | |
| His | Phe | Asn | Ile | Leu | Gln | Asn | Ser | Ser | Ser | Glu | Leu | Phe | Gly | Pro | Arg | 145 | 150 | 155 | 160 |
| Xaa | Ala | Phe | Leu | Leu | Ala | Leu | Gln | Asn | Gly | Cys | Ala | Gly | Ala | Leu | Leu | 165 | 170 | 175 | |
| Lys | Leu | Pro | Phe | Leu | Lys | Ala | Ala | His | Val | Ser | Glu | Gln | Phe | Ala | Arg | 180 | 185 | 190 | |
| His | Ile | Asp | Gln | Gln | Ile | Gln | Gly | Ser | Arg | Ile | Gly | Gly | Ala | Gln | Glu | 195 | 200 | 205 | |
| Met | Glu | Arg | Leu | Ala | Gln | Leu | Gln | Gln | Cys | Leu | Gln | Ala | Val | Leu | Ile | 210 | 215 | 220 | |
| Phe | Ser | Gly | Leu | Glu | Ile | Ala | Thr | Thr | Phe | Glu | His | Tyr | Tyr | Gln | His | 225 | 230 | 235 | 240 |
| Tyr | Met | Ala | Asp | Arg | Leu | Leu | Gly | Val | Val | Ser | Ser | Trp | Leu | Glu | Gly | 245 | 250 | 255 | |
| Ala | Val | Leu | Glu | Gln | Ile | Gly | Pro | Cys | Phe | Pro | Asn | Arg | Leu | Pro | Gln | 260 | 265 | 270 | |
| Gln | Met | Leu | Gln | Ser | Leu | Ser | Thr | Ser | Lys | Glu | Leu | Gln | Arg | Gln | Phe | 275 | 280 | 285 | |
| His | Val | Tyr | Gln | Leu | Gln | Gln | Leu | Asp | Gln | Glu | Leu | Leu | Lys | Leu | Glu | 290 | 295 | 300 | |
| Asp | Thr | Glu | Lys | Lys | Ile | Gln | Val | Gly | Leu | Gly | Ala | Ser | Gly | Lys | Glu | 305 | 310 | 315 | 320 |
| His | Lys | Ser | Glu | Lys | Glu | Glu | Glu | Ala | Gly | Ala | Ala | Ala | Val | Val | Asp | 325 | 330 | 335 | |
| Val | Ala | Glu | Gly | Glu | Glu | Glu | Glu | Glu | Glu | Asn | Glu | Asp | Leu | Tyr | Tyr | 340 | 345 | 350 | |
| Glu | Gly | Ala | Met | Pro | Glu | Val | Ser | Val | Leu | Val | Leu | Ser | Arg | His | Ser | 355 | 360 | 365 | |
| Trp | Pro | Val | Ala | Ser | Ile | Cys | His | Thr | Leu | Asn | Pro | Arg | Thr | Cys | Leu | 370 | 375 | 380 | |

1331

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Pro | Ser | Tyr | Leu | Arg | Gly | Thr | Leu | Asn | Arg | Tyr | Ser | Asn | Phe | Tyr | Asn | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Lys | Ser | Gln | Ser | His | Pro | Ala | Leu | Glu | Arg | Gly | Ser | Gln | Arg | Arg | Leu | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Gln | Trp | Thr | Trp | Leu | Gly | Trp | Ala | Glu | Leu | Gln | Phe | Gly | Asn | Gln | Thr | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Leu | His | Val | Ser | Thr | Val | Gln | Met | Trp | Leu | Leu | Leu | Tyr | Leu | Asn | Asp | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Leu | Lys | Ala | Val | Ser | Val | Glu | Ser | Leu | Leu | Ala | Phe | Ser | Gly | Leu | Ser | |
| | 450 | | | | | 455 | | | | | 460 | | | | | |
| Ala | Asp | Met | Leu | Asn | Gln | Ala | Ile | Gly | Pro | Leu | Thr | Ser | Ser | Arg | Gly | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Pro | Leu | Asp | Leu | His | Glu | Gln | Lys | Asp | Ile | Pro | Gly | Gly | Val | Leu | Lys | |
| | | | | 485 | | | | | 490 | | | | | | 495 | |
| Ile | Arg | Asp | Gly | Ser | Lys | Glu | Pro | Arg | Ser | Arg | Trp | Asp | Ile | Val | Arg | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Leu | Ile | Pro | Pro | Gln | Thr | Tyr | Leu | Gln | Ala | Glu | Gly | Glu | Asp | Gly | Gln | |
| | | 515 | | | | | 520 | | | | | 525 | | | | |
| Asn | Leu | Glu | Lys | Arg | Arg | Asn | Leu | Leu | Asn | Cys | Leu | Ile | Val | Arg | Ile | |
| | 530 | | | | | 535 | | | | | 540 | | | | | |
| Leu | Lys | Ala | His | Gly | Asp | Glu | Gly | Leu | His | Ile | Asp | Gln | Leu | Val | Cys | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | |
| Leu | Val | Leu | Glu | Ala | Trp | Gln | Lys | Gly | Pro | Cys | Pro | Pro | Arg | Gly | Leu | |
| | | | | 565 | | | | | 570 | | | | | 575 | | |
| Val | Ser | Ser | Leu | Gly | Lys | Gly | Ser | Ala | Cys | Ser | Ser | Thr | Asp | Val | Leu | |
| | | | 580 | | | | | 585 | | | | | 590 | | | |
| Ser | Cys | Ile | Leu | His | Leu | Leu | Gly | Lys | Gly | Thr | Leu | Arg | Arg | His | Asp | |
| | | 595 | | | | | 600 | | | | | 605 | | | | |
| Asp | Arg | Pro | Gln | Val | Leu | Ser | Tyr | Ala | Val | Pro | Val | Thr | Val | Met | Glu | |
| | 610 | | | | | 615 | | | | | 620 | | | | | |
| Pro | His | Thr | Glu | Ser | Leu | Asn | Pro | Gly | Ser | Ser | Gly | Pro | Asn | Pro | Pro | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | |
| Leu | Thr | Phe | His | Thr | Leu | Gln | Ile | Arg | Ser | Arg | Gly | Val | Pro | Tyr | Ala | |
| | | | | 645 | | | | | 650 | | | | | 655 | | |

1332

Ser Cys Thr Ala Thr Gln Ser Phe Ser Thr Ser Gly Ser Pro Arg Leu
 660 665 670

Gly Val Arg Gly Arg
 675

<210> 1296

<211> 578

<212> PRT

<213> Homo sapiens

<400> 1296

Gly Thr Arg Glu Gly Ala Arg Val Gly Gly Ala Arg Gly Gly Arg Asp
 1 5 10 15

Gly Arg Lys Met Ala Thr Ala Thr Ile Ala Leu Gln Val Asn Gly Gln
 20 25 30

Gln Gly Gly Gly Ser Glu Pro Ala Ala Ala Ala Val Val Ala Ala
 35 40 45

Gly Asp Lys Trp Lys Pro Pro Gln Gly Thr Asp Ser Ile Lys Met Glu
 50 55 60

Asn Gly Gln Ser Thr Ala Ala Lys Leu Gly Leu Pro Pro Leu Thr Pro
 65 70 75 80

Glu Gln Gln Glu Ala Leu Gln Lys Ala Lys Lys Tyr Ala Met Glu Gln
 85 90 95

Ser Ile Lys Ser Val Leu Val Lys Gln Thr Ile Ala His Gln Gln Gln
 100 105 110

Gln Leu Thr Asn Leu Gln Met Ala Ala Val Thr Met Gly Phe Gly Asp
 115 120 125

Pro Leu Ser Pro Leu Gln Ser Met Ala Ala Gln Arg Gln Arg Ala Leu
 130 135 140

Ala Ile Met Cys Arg Val Tyr Val Gly Ser Ile Tyr Tyr Glu Leu Gly
 145 150 155 160

Glu Asp Thr Ile Arg Gln Ala Phe Ala Pro Phe Gly Pro Ile Lys Ser
 165 170 175

Ile Asp Met Ser Trp Asp Ser Val Thr Met Lys His Lys Gly Phe Ala
 180 185 190

Phe Val Glu Tyr Glu Val Pro Glu Ala Ala Gln Leu Ala Leu Glu Gln

1333

| | | |
|---|-----|---------|
| 195 | 200 | 205 |
| Met Asn Ser Val Met Leu Gly Gly Arg Asn Ile Lys Val Gly Arg Pro | | |
| 210 | 215 | 220 |
| Ser Asn Ile Gly Gln Ala Gln Pro Ile Ile Asp Gln Leu Ala Glu Glu | | |
| 225 | 230 | 235 240 |
| Ala Arg Ala Phe Asn Arg Ile Tyr Val Ala Ser Val His Gln Asp Leu | | |
| | 245 | 250 255 |
| Ser Asp Asp Asp Ile Lys Ser Val Phe Glu Ala Phe Gly Lys Ile Lys | | |
| | 260 | 265 270 |
| Ser Cys Thr Leu Ala Arg Asp Pro Thr Thr Gly Lys His Lys Gly Tyr | | |
| | 275 | 280 285 |
| Gly Phe Ile Glu Tyr Glu Lys Ala Gln Ser Ser Gln Asp Ala Val Ser | | |
| | 290 | 295 300 |
| Ser Met Asn Leu Phe Asp Leu Gly Gly Gln Tyr Leu Arg Val Gly Lys | | |
| 305 | 310 | 315 320 |
| Ala Val Thr Pro Pro Met Pro Leu Leu Thr Pro Ala Thr Pro Gly Gly | | |
| | 325 | 330 335 |
| Leu Pro Pro Ala Ala Ala Val Ala Ala Ala Ala Ala Thr Ala Lys Ile | | |
| | 340 | 345 350 |
| Thr Ala Gln Glu Ala Val Ala Gly Ala Ala Val Leu Gly Thr Leu Gly | | |
| | 355 | 360 365 |
| Thr Pro Gly Leu Val Ser Pro Ala Leu Thr Leu Ala Gln Pro Leu Gly | | |
| | 370 | 375 380 |
| Thr Leu Pro Gln Ala Val Met Ala Ala Gln Ala Pro Gly Val Ile Thr | | |
| 385 | 390 | 395 400 |
| Gly Val Thr Pro Ala Arg Pro Pro Ile Pro Val Thr Ile Pro Ser Val | | |
| | 405 | 410 415 |
| Gly Val Val Asn Pro Ile Leu Ala Ser Pro Pro Thr Leu Gly Leu Leu | | |
| | 420 | 425 430 |
| Glu Pro Lys Lys Glu Lys Glu Glu Glu Leu Phe Pro Glu Ser Glu | | |
| | 435 | 440 445 |
| Arg Pro Glu Met Leu Ser Glu Gln Glu His Met Ser Ile Ser Gly Ser | | |
| | 450 | 455 460 |
| Ser Ala Arg His Met Val Met Gln Lys Leu Leu Arg Lys Gln Glu Ser | | |

1334

465 470 475 480
 Thr Val Met Val Leu Arg Asn Met Val Asp Pro Lys Asp Ile Asp Asp
 485 490 495
 Asp Leu Glu Gly Glu Val Thr Glu Glu Cys Gly Lys Phe Gly Ala Val
 500 505 510
 Asn Arg Val Ile Ile Tyr Gln Glu Lys Gln Gly Glu Glu Glu Asp Ala
 515 520 525
 Glu Ile Ile Val Lys Ile Phe Val Glu Phe Ser Ile Ala Ser Glu Thr
 530 535 540
 His Lys Ala Ile Gln Ala Leu Asn Gly Arg Trp Phe Ala Gly Arg Lys
 545 550 555 560
 Val Val Ala Glu Val Tyr Asp Gln Glu Arg Phe Asp Asn Ser Asp Leu
 565 570 575
 Ser Ala

<210> 1297
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 1297
 Pro Arg Gly Thr Ser Arg Arg Ser Ala Trp Pro Lys Met Ala Ala Ser
 1 5 10 15
 Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser Trp Ser Arg Glu
 20 25 30
 Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro Val Cys Ala Lys
 35 40 45
 Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp Lys Pro Val Thr
 50 55 60
 Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His Arg Lys Gly Trp
 65 70 75 80
 Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp His Ala Ala Glu
 85 90 95
 Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met Trp Gly Thr Phe
 100 105 110

1335

Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg Arg Gly Asn Gln
 115 120 125

Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser Pro His Lys Tyr
 130 135 140

Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser Tyr Phe Tyr Lys
 145 150 155 160

Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser Lys Val Val Tyr
 165 170 175

Lys Tyr Leu

<210> 1298
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 1298
 Gly Leu Val Thr Ile Phe Gly Cys Pro Ser Arg Glu Lys Gly Arg Met
 1 5 10 15

Pro Leu Glu Ser Ser Ser Ser Met Pro Leu Ser Phe Pro Ser Leu Leu
 20 25 30

Pro Ser Val Pro His Asn Thr Asn Pro Ser Pro Pro Leu Met Ser Tyr
 35 40 45

Ile Thr Ser Gln Glu Met Lys Cys Ile Leu His Trp Phe Ala Asn Trp
 50 55 60

Ser Gly Pro Gln Arg Glu Arg Phe Leu Glu Asp Leu Val Ala Lys Ala
 65 70 75 80

Val Pro Glu Lys Leu Gln Pro Leu Leu Asp Ser Leu Glu Gln Leu Ser
 85 90 95

Val Ser Gly Ala Asp Arg Pro Pro Ser Ile Phe Glu Cys Gln Leu His
 100 105 110

Leu Trp Asp Gln Trp Phe Arg Gly Trp Ala Glu Gln Glu Arg Asn Glu
 115 120 125

Phe Val Arg Gln Leu Glu Phe Ser Glu Pro Asp Phe Val Ala Lys Phe
 130 135 140

1336

Tyr Gln Ala Val Ala Ala Thr Ala Gly Lys Asp
 145 150 155

<210> 1299

<211> 449

<212> PRT

<213> Homo sapiens

<400> 1299

Ser Asn Arg Lys Phe Ile Pro His Gln Leu Leu Val Ala Ile Asp Leu
 1 5 10 15

Leu Ala Arg Gln Ala Val Arg Tyr Ile Asn Glu Asn Leu Ile Val Asn
 20 25 30

Thr Asp Glu Leu Gly Arg Asp Cys Leu Ile Asn Ala Ala Lys Thr Ser
 35 40 45

Met Ser Ser Lys Ile Ile Gly Ile Asn Gly Asp Phe Phe Ala Asn Met
 50 55 60

Val Val Asp Ala Val Leu Ala Ile Lys Tyr Thr Asp Ile Arg Gly Gln
 65 70 75 80

Pro Arg Tyr Pro Val Asn Ser Val Asn Ile Leu Lys Ala His Gly Arg
 85 90 95

Ser Gln Met Glu Ser Met Leu Ile Ser Gly Tyr Ala Leu Asn Cys Val
 100 105 110

Val Gly Ser Gln Gly Met Pro Lys Arg Ile Val Asn Ala Lys Ile Ala
 115 120 125

Cys Leu Asp Phe Ser Leu Gln Lys Thr Lys Met Lys Leu Gly Val Gln
 130 135 140

Val Val Ile Thr Asp Pro Glu Lys Leu Asp Gln Ile Arg Gln Arg Glu
 145 150 155 160

Ser Asp Ile Thr Lys Glu Arg Ile Gln Lys Ile Leu Ala Thr Gly Ala
 165 170 175

Asn Val Ile Leu Thr Thr Gly Gly Ile Asp Asp Met Cys Leu Lys Tyr
 180 185 190

Phe Val Glu Ala Gly Ala Met Ala Val Arg Arg Val Leu Lys Arg Asp
 195 200 205

Leu Lys Arg Ile Ala Lys Ala Ser Gly Ala Thr Ile Leu Ser Thr Leu

1337

| | | |
|---|---|---------|
| 210 | 215 | 220 |
| Ala Asn Leu Glu Gly | Glu Glu Thr Phe Glu Ala Ala Met Leu Gly Gln | |
| 225 | 230 | 235 240 |
| Ala Glu Glu Val Val Gln Glu Arg Ile Cys Asp Asp Glu Leu Ile Leu | | |
| | 245 | 250 255 |
| Ile Lys Asn Thr Lys Ala Arg Thr Ser Ala Ser Ile Ile Leu Arg Gly | | |
| | 260 | 265 270 |
| Ala Asn Asp Phe Met Cys Asp Glu Met Glu Arg Ser Leu His Asp Ala | | |
| | 275 | 280 285 |
| Leu Cys Val Val Lys Arg Val Leu Glu Ser Lys Ser Val Val Pro Gly | | |
| | 290 | 295 300 |
| Gly Gly Ala Val Glu Ala Ala Leu Ser Ile Tyr Leu Glu Asn Tyr Ala | | |
| 305 | 310 | 315 320 |
| Thr Ser Met Gly Ser Arg Glu Gln Leu Ala Ile Ala Glu Phe Ala Arg | | |
| | 325 | 330 335 |
| Ser Leu Leu Val Ile Pro Asn Thr Leu Ala Val Asn Ala Ala Gln Asp | | |
| | 340 | 345 350 |
| Ser Thr Asp Leu Val Ala Lys Leu Arg Ala Phe His Asn Glu Ala Gln | | |
| | 355 | 360 365 |
| Val Asn Pro Glu Arg Lys Asn Leu Lys Trp Ile Gly Leu Asp Leu Ser | | |
| | 370 | 375 380 |
| Asn Gly Lys Pro Arg Asp Asn Lys Gln Ala Gly Val Phe Glu Pro Thr | | |
| 385 | 390 | 395 400 |
| Ile Val Lys Val Lys Ser Leu Lys Phe Ala Thr Glu Ala Ala Ile Thr | | |
| | 405 | 410 415 |
| Ile Leu Arg Ile Asp Asp Leu Ile Lys Leu His Pro Glu Ser Lys Asp | | |
| | 420 | 425 430 |
| Asp Lys His Gly Ser Tyr Glu Asp Ala Val His Ser Gly Ala Leu Asn | | |
| | 435 | 440 445 |

Asp

<210> 1300

<211> 96

1338

<212> PRT

<213> Homo sapiens

<400> 1300

Leu Met Phe Tyr Val Leu Phe Trp Thr Leu Ser Ser Cys Lys Asn Phe
 1 5 10 15

Tyr Lys Asn Cys Phe Leu His Pro Cys Gly Ala Tyr Ser Ser Glu Pro
 20 25 30

Ser Pro Gln Ser Gln Cys Leu Cys Phe Leu Phe Tyr Phe Cys Ser Ile
 35 40 45

Arg Phe Leu Leu Leu Leu Cys Leu Lys Ser Ser Leu Gly Ser Tyr Gln
 50 55 60

Gly Phe Ser Phe Cys Val Ala Phe Ala Ala Trp Ile Lys His Trp Leu
 65 70 75 80

Thr Val Leu Met Cys Glu Glu Lys Lys Phe Ser Lys Ala Gly Glu Leu
 85 90 95

<210> 1301

<211> 332

<212> PRT

<213> Homo sapiens

<400> 1301

Gly Glu Pro Lys Met Thr Gly Ser Asn Glu Phe Lys Leu Asn Gln Pro
 1 5 10 15

Pro Glu Asp Gly Ile Ser Ser Val Lys Phe Ser Pro Asn Thr Ser Gln
 20 25 30

Phe Leu Leu Val Ser Ser Trp Asp Thr Ser Val Arg Leu Tyr Asp Val
 35 40 45

Pro Ala Asn Ser Met Arg Leu Lys Tyr Gln His Thr Gly Ala Val Leu
 50 55 60

Asp Cys Ala Phe Tyr Asp Pro Thr His Ala Trp Ser Gly Gly Leu Asp
 65 70 75 80

His Gln Leu Lys Met His Asp Leu Asn Thr Asp Gln Glu Asn Leu Val
 85 90 95

1339

Gly Thr His Asp Ala Pro Ile Arg Cys Val Glu Tyr Cys Pro Glu Val
 100 105 110

Asn Val Met Val Thr Gly Ser Trp Asp Gln Thr Val Lys Leu Trp Asp
 115 120 125

Pro Arg Thr Pro Cys Asn Ala Gly Thr Phe Ser Gln Pro Glu Lys Val
 130 135 140

Tyr Thr Leu Ser Val Ser Gly Asp Arg Leu Ile Val Gly Thr Ala Gly
 145 150 155 160

Arg Arg Val Leu Val Trp Asp Leu Arg Asn Met Gly Tyr Val Gln Gln
 165 170 175

Arg Arg Glu Ser Ser Leu Lys Tyr Gln Thr Arg Cys Ile Arg Ala Phe
 180 185 190

Pro Asn Lys Gln Gly Tyr Val Leu Ser Ser Ile Glu Gly Arg Val Ala
 195 200 205

Val Glu Tyr Leu Asp Pro Ser Pro Glu Val Gln Lys Lys Lys Tyr Ala
 210 215 220

Phe Lys Cys His Arg Leu Lys Glu Asn Asn Ile Glu Gln Ile Tyr Pro
 225 230 235 240

Val Asn Ala Ile Ser Phe His Asn Ile His Asn Thr Phe Ala Thr Gly
 245 250 255

Gly Ser Asp Gly Phe Val Asn Ile Trp Asp Pro Phe Asn Lys Lys Arg
 260 265 270

Leu Cys Gln Phe His Arg Tyr Pro Thr Ser Ile Ala Ser Leu Ala Phe
 275 280 285

Ser Asn Asp Gly Thr Thr Leu Ala Ile Ala Ser Ser Tyr Met Tyr Glu
 290 295 300

Met Asp Asp Thr Glu His Pro Glu Asp Gly Ile Phe Ile Arg Gln Val
 305 310 315 320

Thr Asp Ala Glu Thr Lys Pro Lys Ser Pro Cys Thr
 325 330

<210> 1302

<211> 565

<212> PRT

<213> Homo sapiens

1340

<400> 1302

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Leu His Cys Thr Met Cys Gly Ile Trp Ala Leu Phe Gly Ser Asp Asp
 1             5             10             15

Cys Leu Ser Val Gln Cys Leu Ser Ala Met Lys Ile Ala His Arg Gly
      20             25             30

Pro Asp Ala Phe Arg Phe Glu Asn Val Asn Gly Tyr Thr Asn Cys Cys
      35             40             45

Phe Gly Phe His Arg Leu Ala Val Val Asp Pro Leu Phe Gly Met Gln
 50             55             60

Pro Ile Arg Val Lys Lys Tyr Pro Tyr Leu Trp Leu Cys Tyr Asn Gly
 65             70             75             80

Glu Ile Tyr Asn His Lys Lys Met Gln Gln His Phe Glu Phe Glu Tyr
      85             90             95

Gln Thr Lys Val Asp Gly Glu Ile Ile Leu His Leu Tyr Asp Lys Gly
      100             105             110

Gly Ile Glu Gln Thr Ile Cys Met Leu Asp Gly Val Phe Ala Phe Val
      115             120             125

Leu Leu Asp Thr Ala Asn Lys Lys Val Phe Leu Gly Arg Asp Thr Tyr
      130             135             140

Gly Val Arg Pro Leu Phe Lys Ala Met Thr Glu Asp Gly Phe Leu Ala
      145             150             155             160

Val Cys Ser Glu Ala Lys Gly Leu Val Thr Leu Lys His Ser Ala Thr
      165             170             175

Pro Phe Leu Lys Val Glu Pro Phe Leu Pro Gly His Tyr Glu Val Leu
      180             185             190

Asp Leu Lys Pro Asn Gly Lys Val Ala Ser Val Glu Met Val Lys Tyr
      195             200             205

His His Cys Arg Asp Glu Pro Leu His Ala Leu Tyr Asp Asn Val Glu
      210             215             220

Lys Leu Phe Pro Gly Phe Glu Ile Glu Thr Val Lys Asn Asn Leu Arg
      225             230             235             240

Ile Leu Phe Asn Asn Ala Val Lys Lys Arg Leu Met Thr Asp Arg Arg
      245             250             255

Ile Gly Cys Leu Leu Ser Gly Gly Leu Asp Ser Ser Leu Val Ala Ala

```

1341

| | | |
|---|-----|-----|
| 260 | 265 | 270 |
| Thr Leu Leu Lys Gln Leu Lys Glu Ala Gln Val Gln Tyr Pro Leu Gln | | |
| 275 | 280 | 285 |
| Thr Phe Ala Ile Gly Met Glu Asp Ser Pro Asp Leu Leu Ala Ala Arg | | |
| 290 | 295 | 300 |
| Lys Val Ala Asp His Ile Gly Ser Glu His Tyr Glu Val Leu Phe Asn | | |
| 305 | 310 | 315 |
| Ser Glu Glu Gly Ile Gln Ala Leu Asp Glu Val Ile Phe Ser Leu Glu | | |
| | 325 | 330 |
| Thr Tyr Asp Ile Thr Thr Val Arg Ala Ser Val Gly Met Tyr Leu Ile | | |
| | 340 | 345 |
| Ser Lys Tyr Ile Arg Lys Asn Thr Asp Ser Val Val Ile Phe Ser Gly | | |
| | 355 | 360 |
| Glu Gly Ser Asp Glu Leu Thr Gln Gly Tyr Ile Tyr Phe His Lys Ala | | |
| | 370 | 375 |
| Pro Ser Pro Glu Lys Ala Glu Glu Glu Ser Glu Arg Leu Leu Arg Glu | | |
| 385 | 390 | 395 |
| Leu Tyr Leu Phe Asp Val Leu Arg Ala Asp Arg Thr Thr Ala Ala His | | |
| | 405 | 410 |
| Gly Leu Glu Leu Arg Val Pro Phe Leu Asp His Arg Phe Ser Ser Tyr | | |
| | 420 | 425 |
| Tyr Leu Ser Leu Pro Pro Glu Met Arg Ile Pro Lys Asn Gly Ile Glu | | |
| | 435 | 440 |
| Lys His Leu Leu Arg Glu Thr Phe Glu Asp Ser Asn Leu Ile Pro Lys | | |
| | 450 | 455 |
| Glu Ile Leu Trp Arg Pro Lys Glu Ala Phe Ser Asp Gly Ile Thr Ser | | |
| 465 | 470 | 475 |
| Val Lys Asn Ser Trp Phe Lys Ile Leu Gln Glu Tyr Val Glu His Gln | | |
| | 485 | 490 |
| Val Asp Asp Ala Met Met Ala Asn Ala Ala Gln Lys Phe Pro Phe Asn | | |
| | 500 | 505 |
| Thr Pro Lys Thr Lys Glu Gly Tyr Tyr Tyr Arg Gln Val Phe Glu Arg | | |
| | 515 | 520 |
| His Tyr Pro Gly Arg Ala Asp Trp Leu Ser His Tyr Trp Met Pro Lys | | |

| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 1303 | | | | | | | | | | | | | | | | |
| Arg | Arg | Arg | Arg | Ala | Cys | Arg | Ser | Ala | Glu | Gly | Thr | Gly | Leu | Arg | Ser | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Leu | Leu | Leu | Pro | Pro | Arg | Leu | Gln | Leu | Pro | Ala | Gly | Pro | Phe | Ser | Arg | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Cys | Arg | Trp | Asp | Pro | Val | Ser | Ser | Pro | Arg | Pro | Ser | Thr | Met | Pro | Pro | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Lys | Lys | Gly | Gly | Asp | Gly | Ile | Lys | Pro | Pro | Pro | Ile | Ile | Gly | Arg | Phe | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gly | Thr | Ser | Leu | Lys | Ile | Gly | Ile | Val | Gly | Leu | Pro | Asn | Val | Gly | Lys | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Thr | Phe | Phe | Asn | Val | Leu | Thr | Asn | Ser | Gln | Ala | Ser | Ala | Glu | Asn | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Phe | Pro | Phe | Cys | Thr | Ile | Asp | Pro | Asn | Glu | Ser | Arg | Val | Pro | Val | Pro | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Asp | Glu | Arg | Phe | Asp | Phe | Leu | Cys | Gln | Tyr | His | Lys | Pro | Ala | Ser | Lys | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Ile | Pro | Ala | Phe | Leu | Asn | Val | Val | Asp | Ile | Ala | Gly | Leu | Val | Lys | Gly | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ala | His | Asn | Gly | Gln | Gly | Leu | Gly | Asn | Ala | Phe | Leu | Ser | His | Ile | Ser | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Ala | Cys | Asp | Gly | Ile | Phe | His | Leu | Thr | Arg | Ala | Phe | Glu | Asp | Asp | Asp | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ile | Thr | His | Val | Glu | Gly | Ser | Val | Asp | Pro | Ile | Arg | Asp | Ile | Glu | Ile | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |

1343

Ile His Glu Glu Leu Gln Leu Lys Asp Glu Glu Met Ile Gly Pro Ile
 195 200 205

Ile Asp Lys Leu Glu Lys Val Ala Val Arg Gly Gly Asp Lys Lys Leu
 210 215 220

Lys Pro Glu Tyr Asp Ile Met Cys Lys Val Lys Ser Trp Val Ile Asp
 225 230 235 240

Gln Lys Lys Pro Val Arg Phe Tyr His Asp Trp Asn Asp Lys Glu Ile
 245 250 255

Glu Val Leu Asn Lys His Leu Phe Leu Thr Ser Lys Pro Met Val Tyr
 260 265 270

Leu Val Asn Leu Ser Glu Lys Asp Tyr Ile Arg Lys Lys Asn Lys Trp
 275 280 285

Leu Ile Lys Ile Lys Glu Trp Val Asp Lys Tyr Asp Pro Gly Ala Leu
 290 295 300

Val Ile Pro Phe Ser Gly Ala Leu Glu Leu Lys Leu Gln Glu Leu Ser
 305 310 315 320

Ala Glu Glu Arg Gln Lys Tyr Leu Glu Ala Asn Met Thr Gln Ser Ala
 325 330 335

Leu Pro Lys Ile Ile Lys Ala Gly Phe Ala Ala Leu Gln Leu Glu Tyr
 340 345 350

Phe Phe Thr Ala Gly Pro Asp Glu Val Arg Ala Trp Thr Ile Arg Lys
 355 360 365

Gly Thr Lys Ala Pro Gln Ala Ala Gly Lys Ile His Thr Asp Phe Glu
 370 375 380

Lys Gly Phe Ile Met Ala Glu Val Met Lys Tyr Glu Asp Phe Lys Glu
 385 390 395 400

Glu Gly Ser Glu Asn Ala Val Lys Ala Ala Gly Lys Tyr Arg Gln Gln
 405 410 415

Gly Arg Asn Tyr Ile Val Glu Asp Gly Asp Ile Ile Phe Phe Lys Phe
 420 425 430

Asn Thr Pro Gln Gln Pro Lys Lys Lys
 435 440

1344

<210> 1304

<211> 94

<212> PRT

<213> Homo sapiens

<400> 1304

Glu Lys Lys Arg Gly Arg Glu Asp Lys Pro Gly Thr Met Ala Thr Phe
 1 5 10 15

Pro Pro Ala Thr Ser Ala Pro Gln Gln Pro Pro Gly Pro Glu Asp Glu
 20 25 30

Asp Ser Ser Leu Asp Glu Ser Asp Leu Tyr Ser Leu Ala His Ser Tyr
 35 40 45

Leu Gly Gly Gly Gly Arg Lys Gly Arg Thr Lys Arg Glu Ala Ala Ala
 50 55 60

Asn Thr Asn Arg Pro Ser Pro Gly Gly His Glu Arg Lys Leu Val Thr
 65 70 75 80

Lys Leu Gln Asn Ser Glu Arg Lys Lys Arg Gly Ala Arg Arg
 85 90

<210> 1305

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1305

Val Ile Leu Glu Met Val Ile Val Phe Cys Leu Val Thr Phe Ala Thr
 1 5 10 15

Val Pro Phe Lys Thr Met Trp Lys Pro Gln Val Cys Gly Gln His Arg
 20 25 30

Trp Asn Asp Ile Leu Cys Phe Leu Arg Leu Pro Ser Thr Arg His Ile
 35 40 45

Ser Leu Val Leu Gln Met Ser Ala Gln Val Leu Val Thr Ser Phe Ser
 50 55 60

Cys Cys Pro Gly Lys Ser Val Cys Ala Gly Ala Gly Ala Leu Ala Leu
 65 70 75 80

Phe Arg

1345

<210> 1306

<211> 231

<212> PRT

<213> Homo sapiens

<400> 1306

Ala Arg Glu Met Ala Ala Gln Gln Arg Asp Cys Gly Gly Ala Ala Gln
 1 5 10 15

Leu Ala Gly Pro Ala Ala Glu Ala Asp Pro Leu Gly Arg Phe Thr Cys
 20 25 30

Pro Val Cys Leu Glu Val Tyr Glu Lys Pro Val Gln Val Pro Cys Gly
 35 40 45

His Val Phe Cys Ser Ala Cys Leu Gln Glu Cys Leu Lys Pro Lys Lys
 50 55 60

Pro Val Cys Gly Val Cys Arg Ser Ala Leu Ala Pro Gly Val Arg Ala
 65 70 75 80

Val Glu Leu Glu Arg Gln Ile Glu Ser Thr Glu Thr Ser Cys His Gly
 85 90 95

Cys Arg Lys Asn Phe Phe Leu Ser Lys Ile Arg Ser His Val Ala Thr
 100 105 110

Cys Ser Lys Tyr Gln Asn Tyr Ile Met Glu Gly Val Lys Ala Thr Ile
 115 120 125

Lys Asp Ala Ser Leu Gln Pro Arg Asn Val Pro Asn Arg Tyr Thr Phe
 130 135 140

Pro Cys Pro Tyr Cys Pro Glu Lys Asn Phe Asp Gln Glu Gly Leu Val
 145 150 155 160

Glu His Cys Lys Leu Phe His Ser Thr Asp Thr Lys Ser Val Val Cys
 165 170 175

Pro Ile Cys Ala Ser Met Pro Trp Gly Asp Pro Asn Tyr Arg Ser Ala
 180 185 190

Asn Phe Arg Glu His Ile Gln Arg Arg His Arg Phe Ser Tyr Asp Thr
 195 200 205

Phe Val Asp Tyr Asp Val Asp Glu Glu Asp Met Met Asn Gln Val Leu
 210 215 220

Gln Arg Ser Ile Ile Asp Gln
 225 230

1346

<210> 1307

<211> 170

<212> PRT

<213> Homo sapiens

<400> 1307

Gln Lys Gln Arg Thr Phe Trp Lys Tyr Tyr Tyr Asp Gly Lys Asp Tyr
 1 5 10 15

Ile Glu Phe Asn Lys Glu Ile Pro Ala Trp Val Pro Phe Asp Pro Ala
 20 25 30

Ala Gln Ile Thr Lys Gln Lys Trp Glu Ala Glu Pro Val Tyr Val Gln
 35 40 45

Arg Ala Lys Ala Tyr Leu Glu Glu Glu Cys Pro Ala Thr Leu Arg Lys
 50 55 60

Tyr Leu Lys Tyr Ser Lys Asn Ile Leu Asp Arg Gln Asp Pro Pro Ser
 65 70 75 80

Val Val Val Thr Ser His Gln Ala Pro Gly Glu Lys Lys Lys Leu Lys
 85 90 95

Cys Leu Ala Tyr Asp Phe Tyr Pro Gly Lys Ile Asp Val His Trp Thr
 100 105 110

Arg Ala Gly Glu Val Gln Glu Pro Glu Leu Arg Gly Asp Val Leu His
 115 120 125

Asn Gly Asn Gly Thr Tyr Gln Ser Trp Val Val Val Ala Val Pro Pro
 130 135 140

Gln Asp Thr Ala Pro Tyr Ser Cys His Val Gln His Ser Ser Leu Ala
 145 150 155 160

Gln Pro Leu Val Val Pro Trp Glu Ala Ser
 165 170

<210> 1308

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1347

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1308

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Cys | Thr | Val | Arg | Ala | Arg | Arg | Arg | Leu | Asn | Arg | Gly | Leu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Gln | His | Ser | Leu | Leu | Lys | Arg | Leu | Arg | Lys | Ala | Lys | Lys | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Pro | Met | Glu | Lys | Pro | Glu | Val | Val | Lys | Thr | His | Leu | Arg | Asp |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | Ile | Leu | Pro | Glu | Met | Val | Gly | Ser | Met | Val | Gly | Val | Tyr | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Thr | Phe | Asn | Gln | Val | Glu | Ile | Lys | Pro | Glu | Met | Ile | Gly | His |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Gly | Glu | Phe | Ser | Ile | Thr | Tyr | Lys | Pro | Val | Lys | His | Xaa | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Pro | Gly | Ile | Gly | Ala | Thr | His | Xaa | Ser | Arg | Phe | Ile | Pro | Leu | Lys | |
| | | | 100 | | | | | | 105 | | | | 110 | | |

<210> 1309

<211> 121

<212> PRT

<213> Homo sapiens

<400> 1309

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Ser | Pro | Gln | Glu | Arg | Pro | Pro | Pro | Tyr | Leu | Ala | Val | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gly | Glu | Glu | Tyr | Pro | Val | Ala | Gly | Ala | His | Ser | Ser | Pro | Pro | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Phe | Leu | Arg | Val | Pro | Ser | Glu | His | Pro | Tyr | Leu | Thr | Pro | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Glu | Ser | Pro | Glu | His | Trp | Ala | Ser | Pro | Ser | Pro | Pro | Ser | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Trp | Ser | Glu | Ser | Thr | Pro | Ser | Pro | Ala | Thr | Ala | Thr | Gly | Ala | Met |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

;

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Thr | Thr | Thr | Gly | Ala | Leu | Pro | Ala | Gln | Pro | Leu | Pro | Leu | Ser | Val | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Pro | Ser | Ser | Leu | Ala | Gln | Ala | Gln | Thr | Gln | Leu | Gly | Pro | Gln | Pro | Glu | |
| | | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Thr | Pro | Lys | Arg | Gln | Val | Leu | Ala | | | | | | | | |
| | | | | 115 | | | | | 120 | | | | | | | |

```
<210> 1310
<211> 206
<212> PRT
<213> Homo sapiens
```

| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 1310 | | | | | | | | | | | | | | | | |
| Gln | Cys | Pro | Gly | Arg | Ala | Gly | Ala | Pro | Gln | Thr | Arg | Ala | Pro | Arg | Ala | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Arg | Glu | Arg | Gly | Gly | Ala | Met | Ala | Thr | Ala | Asn | Gly | Ala | Val | Glu | Asn | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Gly | Gln | Pro | Asp | Arg | Lys | Pro | Pro | Ala | Leu | Pro | Arg | Pro | Ile | Arg | Asn | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Leu | Glu | Val | Lys | Phe | Thr | Lys | Ile | Phe | Ile | Asn | Asn | Glu | Trp | His | Glu | |
| | 50 | | | | | 55 | | | | 60 | | | | | | |
| Ser | Lys | Ser | Gly | Lys | Lys | Phe | Ala | Thr | Cys | Asn | Pro | Ser | Thr | Arg | Glu | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Gln | Ile | Cys | Glu | Val | Glu | Glu | Gly | Asp | Lys | Pro | Asp | Val | Asp | Lys | Ala | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Glu | Ala | Ala | Gln | Val | Ala | Phe | Gln | Arg | Gly | Ser | Pro | Trp | Arg | Arg | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Leu | Asp | Ala | Leu | Ser | Arg | Gly | Arg | Leu | Leu | His | Gln | Leu | Ala | Asp | Leu | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | Glu | Arg | Asp | Arg | Ala | Thr | Leu | Ala | Ala | Leu | Glu | Thr | Met | Asp | Thr | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Gly | Lys | Pro | Phe | Leu | His | Ala | Phe | Phe | Ile | Asp | Leu | Glu | Gly | Cys | Ile | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Arg | Thr | Leu | Arg | Tyr | Phe | Ala | Gly | Trp | Ala | Asp | Lys | Ile | Gln | Gly | Lys | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |

1349

Thr Ile Pro Thr Asp Asp Asn Val Cys Ala Ser Pro Gly Met Ser Pro
180 185 190

Leu Val Ser Val Gly Pro Ser Leu His Gly Thr Ser Pro Cys
195 200 205

<210> 1311

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1311

Ser Trp Glu Thr Glu Lys Met Gln Thr Ala Gly Ala Leu Phe Ile Ser
1 5 10 15

Pro Ala Leu Ile Arg Cys Cys Thr Arg Gly Leu Ile Arg Pro Val Ser
20 25 30

Ala Ser Phe Leu Asn Ser Pro Val Asn Ser Ser Lys Gln Pro Ser Tyr
35 40 45

Ser Asn Phe Pro Leu Gln Val Ala Arg Arg Glu Phe Gln Thr Ser Val
50 55 60

Val Ser Arg Asp Ile Asp Thr Ala Ala Lys Phe Ile Gly Ala Gly Ala
65 70 75 80

Ala Thr Val Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe
85 90 95

Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln
100 105 110

Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala Leu Ser Glu Ala Met Gly
115 120 125

Leu Phe Cys Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met
130 135 140

<210> 1312

<211> 495

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1350

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (392)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (460)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1312

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Met | Glu | Gly | Gln | Asp | Glu | Val | Ser | Ala | Arg | Glu | Gln | His | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Gln | Val | Arg | Glu | Ser | Thr | Ile | Cys | Phe | Leu | Leu | Phe | Ala | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Val | Val | Ser | Tyr | Phe | Ile | Ile | Thr | Arg | Tyr | Lys | Arg | Lys | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Gln | Glu | Asp | Glu | Asp | Ala | Ile | Val | Asn | Arg | Ile | Ser | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Thr | Phe | Thr | Leu | Ala | Val | Ser | Ala | Gly | Ala | Val | Leu | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ser | Ile | Ile | Ser | Asn | Glu | Ile | Leu | Leu | Ser | Phe | Pro | Gln | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Tyr | Ile | Gln | Trp | Leu | Asn | Gly | Ser | Leu | Ile | His | Gly | Leu | Trp | Asn |
| | | 100 | | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Ser | Leu | Phe | Ser | Asn | Leu | Xaa | Leu | Phe | Val | Leu | Met | Pro | Phe |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Phe | Phe | Leu | Glu | Ser | Glu | Gly | Phe | Ala | Gly | Leu | Lys | Lys | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Ala | Arg | Ile | Leu | Glu | Thr | Leu | Val | Met | Leu | Leu | Leu | Leu | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ile | Leu | Gly | Ile | Val | Trp | Val | Ala | Ser | Ala | Leu | Ile | Asp | Asn |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Ala | Ser | Met | Glu | Ser | Leu | Tyr | Asp | Leu | Trp | Glu | Phe | Tyr | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Tyr | Leu | Tyr | Ser | Cys | Ile | Ser | Leu | Met | Gly | Cys | Leu | Leu | Leu | Leu |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1351

| | | |
|-------------------------|---------------------|---------------------|
| 195 | 200 | 205 |
| Leu Cys Thr Pro Val Gly | Leu Ser Arg Met Phe | Thr Val Met Gly Gln |
| 210 | 215 | 220 |
| Leu Leu Val Lys Pro Thr | Ile Leu Glu Asp Leu | Asp Glu Gln Ile Tyr |
| 225 | 230 | 235 |
| Ile Ile Thr Leu Glu Glu | Glu Ala Leu Gln Arg | Arg Leu Asn Gly Leu |
| 245 | 250 | 255 |
| Ser Ser Ser Val Glu Tyr | Asn Ile Met Glu Leu | Glu Gln Glu Leu Glu |
| 260 | 265 | 270 |
| Asn Val Lys Thr Leu Lys | Thr Lys Leu Asp Pro | Trp Ser Ser Phe Ser |
| 275 | 280 | 285 |
| Val Leu Gln Ser Pro Val | Trp His Phe Ala Ala | Gln Thr Pro Ala Asp |
| 290 | 295 | 300 |
| Ile Val Ser Pro Asp Ser | His Phe Met Leu Ser | Thr Gln Gly Met Ser |
| 305 | 310 | 315 |
| Trp Ala Gln Leu Val Phe | Leu Leu Pro Ala Ser | Arg Pro Gly Asn Ser |
| 325 | 330 | 335 |
| Gln Asp Lys Arg Arg Lys | Lys Ala Ser Ala Trp | Glu Arg Asn Leu Val |
| 340 | 345 | 350 |
| Tyr Pro Ala Val Met Val | Leu Leu Leu Ile Glu | Thr Ser Ile Ser Val |
| 355 | 360 | 365 |
| Leu Leu Val Ala Cys Asn | Ile Leu Cys Leu Leu | Val Asp Glu Thr Ala |
| 370 | 375 | 380 |
| Met Pro Lys Gly Thr Arg | Gly Xaa Gly Ile Gly | Asn Ala Ser Leu Ser |
| 385 | 390 | 395 |
| Thr Phe Gly Phe Val Gly | Ala Ala Leu Glu Ile | Ile Leu Ile Phe Tyr |
| 405 | 410 | 415 |
| Leu Met Val Ser Ser Val | Val Gly Phe Tyr Ser | Leu Arg Phe Phe Gly |
| 420 | 425 | 430 |
| Asn Phe Thr Pro Lys Lys | Asp Asp Thr Thr Met | Thr Lys Ile Ile Gly |
| 435 | 440 | 445 |
| Asn Cys Val Ser Ile Leu | Val Leu Ser Ser Ala | Xaa Pro Val Met Ser |
| 450 | 455 | 460 |
| Arg Thr Leu Gly Leu His | Lys Leu His Leu Pro | Asn Thr Ser Arg Asp |

1352

465 470 475 480

Ser Glu Thr Ala Lys Pro Ser Val Asn Gly His Gln Lys Ala Leu

 485 490 495

<210> 1313

<211> 790

<212> PRT

<213> Homo sapiens

<400> 1313

Gly Thr Arg Gly Thr Ala Thr Glu Arg Leu Lys Met Ile Pro Phe Leu

1 5 10 15

Pro Met Phe Ser Leu Leu Leu Leu Leu Ile Val Asn Pro Ile Asn Ala

 20 25 30

Asn Asn His Tyr Asp Lys Ile Leu Ala His Ser Arg Ile Arg Gly Arg

 35 40 45

Asp Gln Gly Pro Asn Val Cys Ala Leu Gln Gln Ile Leu Gly Thr Lys

50 55 60

Lys Lys Tyr Phe Ser Thr Cys Lys Asn Trp Tyr Lys Lys Ser Ile Cys

65 70 75 80

Gly Gln Lys Thr Thr Val Leu Tyr Glu Cys Cys Pro Gly Tyr Met Arg

 85 90 95

Met Glu Gly Met Lys Gly Cys Pro Ala Val Leu Pro Ile Asp His Val

 100 105 110

Tyr Gly Thr Leu Gly Ile Val Gly Ala Thr Thr Thr Gln Arg Tyr Ser

 115 120 125

Asp Ala Ser Lys Leu Arg Glu Glu Ile Glu Gly Lys Gly Ser Phe Thr

130 135 140

Tyr Phe Ala Pro Ser Asn Glu Ala Trp Asp Asn Leu Asp Ser Asp Ile

145 150 155 160

Arg Arg Gly Leu Glu Ser Asn Val Asn Val Glu Leu Leu Asn Ala Leu

 165 170 175

His Ser His Met Ile Asn Lys Arg Met Leu Thr Lys Asp Leu Lys Asn

 180 185 190

Gly Met Ile Ile Pro Ser Met Tyr Asn Asn Leu Gly Leu Phe Ile Asn

195 200 205

1353

His Tyr Pro Asn Gly Val Val Thr Val Asn Cys Ala Arg Ile Ile His
 210 215 220
 Gly Asn Gln Ile Ala Thr Asn Gly Val Val His Val Ile Asp Arg Val
 225 230 235 240
 Leu Thr Gln Ile Gly Thr Ser Ile Gln Asp Phe Ile Glu Ala Glu Asp
 245 250 255
 Asp Leu Ser Ser Phe Arg Ala Ala Ala Ile Thr Ser Asp Ile Leu Glu
 260 265 270
 Ala Leu Gly Arg Asp Gly His Phe Thr Leu Phe Ala Pro Thr Asn Glu
 275 280 285
 Ala Phe Glu Lys Leu Pro Arg Gly Val Leu Glu Arg Ile Met Gly Asp
 290 295 300
 Lys Val Ala Ser Glu Ala Leu Met Lys Tyr His Ile Leu Asn Thr Leu
 305 310 315 320
 Gln Cys Ser Glu Ser Ile Met Gly Gly Ala Val Phe Glu Thr Leu Glu
 325 330 335
 Gly Asn Thr Ile Glu Ile Gly Cys Asp Gly Asp Ser Ile Thr Val Asn
 340 345 350
 Gly Ile Lys Met Val Asn Lys Lys Asp Ile Val Thr Asn Asn Gly Val
 355 360 365
 Ile His Leu Ile Asp Gln Val Leu Ile Pro Asp Ser Ala Lys Gln Val
 370 375 380
 Ile Glu Leu Ala Gly Lys Gln Gln Thr Thr Phe Thr Asp Leu Val Ala
 385 390 395 400
 Gln Leu Gly Leu Ala Ser Ala Leu Arg Pro Asp Gly Glu Tyr Thr Leu
 405 410 415
 Leu Ala Pro Val Asn Asn Ala Phe Ser Asp Asp Thr Leu Ser Met Asp
 420 425 430
 Gln Arg Leu Leu Lys Leu Ile Leu Gln Asn His Ile Leu Lys Val Lys
 435 440 445
 Val Gly Leu Asn Glu Leu Tyr Asn Gly Gln Ile Leu Glu Thr Ile Gly
 450 455 460
 Gly Lys Gln Leu Arg Val Phe Val Tyr Arg Thr Ala Val Cys Ile Glu
 465 470 475 480

1354

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Cys | Met | Glu | Lys | Gly | Ser | Lys | Gln | Gly | Arg | Asn | Gly | Ala | Ile | 485 | 490 | 495 |
| His | Ile | Phe | Arg | Glu | Ile | Ile | Lys | Pro | Ala | Glu | Lys | Ser | Leu | His | Glu | 500 | 505 | 510 |
| Lys | Leu | Lys | Gln | Asp | Lys | Arg | Phe | Ser | Thr | Phe | Leu | Ser | Leu | Leu | Glu | 515 | 520 | 525 |
| Ala | Ala | Asp | Leu | Lys | Glu | Leu | Leu | Thr | Gln | Pro | Gly | Asp | Trp | Thr | Leu | 530 | 535 | 540 |
| Phe | Val | Pro | Thr | Asn | Asp | Ala | Phe | Lys | Gly | Met | Thr | Ser | Glu | Glu | Lys | 545 | 550 | 555 |
| Glu | Ile | Leu | Ile | Arg | Asp | Lys | Asn | Ala | Leu | Gln | Asn | Ile | Ile | Leu | Tyr | 565 | 570 | 575 |
| His | Leu | Thr | Pro | Gly | Val | Phe | Ile | Gly | Lys | Gly | Phe | Glu | Pro | Gly | Val | 580 | 585 | 590 |
| Thr | Asn | Ile | Leu | Lys | Thr | Thr | Gln | Gly | Ser | Lys | Ile | Phe | Leu | Lys | Glu | 595 | 600 | 605 |
| Val | Asn | Asp | Thr | Leu | Leu | Val | Asn | Glu | Leu | Lys | Ser | Lys | Glu | Ser | Asp | 610 | 615 | 620 |
| Ile | Met | Thr | Thr | Asn | Gly | Val | Ile | His | Val | Val | Asp | Lys | Leu | Leu | Tyr | 625 | 630 | 635 |
| Pro | Ala | Asp | Thr | Pro | Val | Gly | Asn | Asp | Gln | Leu | Leu | Glu | Ile | Leu | Asn | 645 | 650 | 655 |
| Lys | Leu | Ile | Lys | Tyr | Ile | Gln | Ile | Lys | Phe | Val | Arg | Gly | Ser | Thr | Phe | 660 | 665 | 670 |
| Lys | Glu | Ile | Pro | Val | Thr | Val | Tyr | Lys | Pro | Ile | Ile | Lys | Lys | Tyr | Thr | 675 | 680 | 685 |
| Lys | Ile | Ile | Asp | Gly | Val | Pro | Val | Glu | Ile | Thr | Glu | Lys | Glu | Thr | Arg | 690 | 695 | 700 |
| Glu | Glu | Arg | Ile | Ile | Thr | Gly | Pro | Glu | Ile | Lys | Tyr | Thr | Arg | Ile | Ser | 705 | 710 | 715 |
| Thr | Gly | Gly | Gly | Glu | Thr | Glu | Glu | Thr | Leu | Lys | Lys | Leu | Leu | Gln | Glu | 725 | 730 | 735 |
| Glu | Val | Thr | Lys | Val | Thr | Lys | Phe | Ile | Glu | Gly | Gly | Asp | Gly | His | Leu | 740 | 745 | 750 |

1355

Phe Glu Asp Glu Glu Ile Lys Arg Leu Leu Gln Gly Asp Thr Pro Val
 755 760 765

Arg Lys Leu Gln Ala Asn Lys Lys Val Gln Gly Ser Arg Arg Arg Leu
 770 775 780

Arg Glu Gly Arg Ser Gln
 785 790

<210> 1314

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1314

Thr Ser Trp Ala Phe Asp Glu Thr Gly Xaa Asn Thr Ala Val Phe Leu
 1 5 10 15

Leu Glu Ile Xaa Trp Gly Ile Phe Phe Glu Leu Met Gly Thr Ile Arg
 20 25 30

His Asn Cys Leu His Lys Leu Gly Ile Xaa Asp Phe Gly Ile Thr Ile
 35 40 45

Tyr Gln Asn Gly Asp Ile Ser Pro Leu Val Leu Arg Cys Lys Pro Lys
 50 55 60

Asn Ile Met Thr Ser Phe Gln Ala Ser
 65 70

<210> 1315

1356

<211> 268

<212> PRT

<213> Homo sapiens

<400> 1315

```

Pro Gly Arg Pro Thr Arg Pro Arg Thr Arg Gly Ile Asn Lys Leu Ile
  1             5             10             15

Arg Ile Gly Arg Asn Glu Cys Val Val Val Ile Arg Val Asp Lys Glu
          20             25             30

Lys Gly Tyr Ile Asp Leu Ser Lys Arg Arg Val Ser Pro Glu Glu Ala
          35             40             45

Ile Lys Cys Glu Asp Lys Phe Thr Lys Ser Lys Thr Val Tyr Ser Ile
          50             55             60

Leu Arg His Val Ala Glu Val Leu Glu Tyr Thr Lys Asp Glu Gln Leu
          65             70             75             80

Glu Ser Leu Phe Gln Arg Thr Ala Trp Val Phe Asp Asp Lys Tyr Lys
          85             90             95

Arg Pro Gly Tyr Gly Ala Tyr Asp Ala Phe Lys His Ala Val Ser Asp
          100            105            110

Pro Ser Ile Leu Asp Ser Leu Asp Leu Asn Glu Asp Glu Arg Glu Val
          115            120            125

Leu Ile Asn Asn Ile Asn Arg Arg Leu Thr Pro Gln Ala Val Lys Ile
          130            135            140

Arg Ala Asp Ile Glu Val Ala Cys Tyr Gly Tyr Glu Gly Ile Asp Ala
          145            150            155            160

Val Lys Glu Ala Leu Arg Ala Gly Leu Asn Cys Ser Thr Glu Asn Met
          165            170            175

Pro Ile Lys Ile Asn Leu Ile Ala Pro Pro Arg Tyr Val Met Thr Thr
          180            185            190

Thr Thr Leu Glu Arg Thr Glu Gly Leu Ser Val Leu Ser Gln Ala Met
          195            200            205

Ala Val Ile Lys Glu Lys Ile Glu Glu Lys Arg Gly Val Phe Asn Val
          210            215            220

Gln Met Glu Pro Lys Val Val Thr Asp Thr Asp Glu Thr Glu Leu Ala
          225            230            235            240

Arg Gln Met Glu Arg Leu Glu Arg Glu Asn Ala Glu Val Asp Gly Asp

```

1357

| | | |
|---|-----|---------|
| 245 | 250 | 255 |
| Asp Asp Ala Glu Glu Met Glu Ala Lys Ala Glu Asp | | |
| 260 | 265 | |
| | | |
| <210> 1316 | | |
| <211> 315 | | |
| <212> PRT | | |
| <213> Homo sapiens | | |
| | | |
| <400> 1316 | | |
| Gly Gln Arg Ala Gly Met Pro His Ala Gln Gly Gly Trp Ser Gly Pro | | |
| 1 | 5 | 10 15 |
| Ala Ala Asp Ser Ala Glu Pro Ala Leu Pro Ala Gly Glu Pro Gly Gly | | |
| 20 | 25 | 30 |
| Pro Thr Leu Met Arg Leu Asn Ser Val Gln Ser Ser Glu Arg Pro Leu | | |
| 35 | 40 | 45 |
| Phe Leu Val His Pro Ile Glu Gly Ser Thr Thr Val Phe His Ser Leu | | |
| 50 | 55 | 60 |
| Ala Ser Arg Leu Ser Ile Pro Thr Tyr Gly Leu Gln Cys Thr Arg Ala | | |
| 65 | 70 | 75 80 |
| Ala Pro Leu Asp Ser Ile His Ser Leu Ala Ala Tyr Tyr Ile Asp Cys | | |
| 85 | 90 | 95 |
| Ile Arg Gln Val Gln Pro Glu Gly Pro Tyr Arg Val Ala Gly Tyr Ser | | |
| 100 | 105 | 110 |
| Tyr Gly Ala Cys Val Ala Phe Glu Met Cys Ser Gln Leu Gln Ala Gln | | |
| 115 | 120 | 125 |
| Gln Ser Pro Ala Pro Thr His Asn Ser Leu Phe Leu Phe Asp Gly Ser | | |
| 130 | 135 | 140 |
| Pro Thr Tyr Val Leu Ala Tyr Thr Gln Ser Tyr Arg Ala Lys Leu Thr | | |
| 145 | 150 | 155 160 |
| Pro Gly Cys Glu Ala Glu Ala Glu Thr Glu Ala Ile Cys Phe Phe Val | | |
| 165 | 170 | 175 |
| Gln Gln Phe Thr Asp Met Glu His Asn Arg Val Leu Glu Ala Leu Leu | | |
| 180 | 185 | 190 |
| Pro Leu Lys Gly Leu Glu Glu Arg Val Ala Ala Ala Val Asp Leu Ile | | |
| 195 | 200 | 205 |

1358

Ile Lys Ser His Gln Gly Leu Asp Arg Gln Glu Leu Ser Phe Ala Ala
210 215 220

Arg Ser Phe Tyr Tyr Lys Leu Arg Ala Ala Glu Gln Tyr Thr Pro Lys
225 230 235 240

Ala Lys Tyr His Gly Asn Val Met Leu Leu Arg Ala Lys Thr Gly Gly
245 250 255

Ala Tyr Gly Glu Asp Leu Gly Ala Asp Tyr Asn Leu Ser Gln Val Cys
260 265 270

Asp Gly Lys Val Ser Val His Val Ile Glu Gly Asp His Arg Thr Leu
275 280 285

Leu Glu Gly Ser Gly Leu Glu Ser Ile Ile Ser Ile Ile His Ser Ser
290 295 300

Leu Ala Glu Pro Arg Val Ser Val Arg Glu Gly
305 310 315

<210> 1317

<211> 191

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1359

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1317

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Xaa | Val | Xaa | Asp | Arg | Leu | Leu | Xaa | Thr | Ser | Gly | Ser | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Arg | Xaa | Phe | Gly | His | Glu | Xaa | Glu | Met | Ala | Pro | Asn | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Cys | Val | His | Val | Arg | Ser | Glu | Glu | Trp | Asp | Leu | Met | Thr | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Asn | Pro | Tyr | Asp | Ser | Val | Lys | Lys | Ile | Lys | Glu | His | Val | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Thr | Lys | Val | Pro | Val | Gln | Asp | Gln | Val | Leu | Leu | Leu | Gly | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Leu | Lys | Pro | Arg | Arg | Ser | Leu | Ser | Ser | Tyr | Gly | Ile | Asp | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Thr | Ile | His | Leu | Thr | Leu | Lys | Val | Val | Lys | Pro | Ser | Asp | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Pro | Leu | Phe | Leu | Val | Glu | Ser | Gly | Asp | Glu | Ala | Lys | Arg | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Gln | Val | Arg | Arg | Ser | Ser | Ser | Val | Ala | Gln | Val | Lys | Ala | Met |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Thr | Lys | Thr | Gly | Ile | Ile | Pro | Glu | Thr | Gln | Ile | Val | Thr | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Lys | Arg | Leu | Glu | Asp | Gly | Lys | Met | Met | Ala | Asp | Tyr | Gly | Ile |
| | | | 165 | | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Arg | Lys | Gly | Asn | Leu | Leu | Phe | Leu | Ala | Xaa | Tyr | Cys | Ile | Gly | Gly | |
| | | | 180 | | | | | 185 | | | | | 190 | | |

<210> 1318

<211> 230

<212> PRT

<213> Homo sapiens

1360

<400> 1318

```

Arg Asn Leu Gln Glu Thr Ala Ile Met Ala Glu Lys Pro Lys Leu His
  1              5              10              15

Tyr Phe Asn Ala Arg Gly Arg Met Glu Ser Thr Arg Trp Leu Leu Ala
      20              25              30

Ala Ala Gly Val Glu Phe Glu Glu Lys Phe Ile Lys Ser Ala Glu Asp
      35              40              45

Leu Asp Lys Leu Arg Asn Asp Gly Tyr Leu Met Phe Gln Gln Val Pro
      50              55              60

Met Val Glu Ile Asp Gly Met Lys Leu Val Gln Thr Arg Ala Ile Leu
      65              70              75              80

Asn Tyr Ile Ala Ser Lys Tyr Asn Leu Tyr Gly Lys Asp Ile Lys Glu
      85              90              95

Arg Ala Leu Ile Asp Met Tyr Ile Glu Gly Ile Ala Asp Leu Gly Glu
      100              105              110

Met Ile Leu Leu Leu Pro Val Cys Pro Pro Glu Glu Lys Asp Ala Lys
      115              120              125

Leu Ala Leu Ile Lys Glu Lys Ile Lys Asn Arg Tyr Phe Pro Ala Phe
      130              135              140

Glu Lys Val Leu Lys Ser His Gly Gln Asp Tyr Leu Val Gly Asn Lys
      145              150              155              160

Leu Ser Arg Ala Asp Ile His Leu Val Glu Leu Leu Tyr Tyr Val Glu
      165              170              175

Glu Leu Asp Ser Ser Leu Ile Ser Ser Phe Pro Leu Leu Lys Ala Leu
      180              185              190

Lys Thr Arg Ile Ser Asn Leu Pro Thr Val Lys Lys Phe Leu Gln Pro
      195              200              205

Gly Ser Pro Arg Lys Pro Pro Met Asp Glu Lys Ser Leu Glu Glu Ala
      210              215              220

Arg Lys Ile Phe Arg Phe
      225              230

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<210> 1319

<211> 279

1361

<212> PRT

<213> Homo sapiens

<400> 1319

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gly | Pro | Ala | Glu | Gly | Asn | Met | Ala | Ala | Lys | Val | Phe | Glu | Ser | Ile | 1 | 5 | 10 | 15 |
| Gly | Lys | Phe | Gly | Leu | Ala | Leu | Ala | Val | Ala | Gly | Gly | Val | Val | Asn | Ser | 20 | 25 | 30 | |
| Ala | Leu | Tyr | Asn | Val | Asp | Ala | Gly | His | Arg | Ala | Val | Ile | Phe | Asp | Arg | 35 | 40 | 45 | |
| Phe | Arg | Gly | Val | Gln | Asp | Ile | Val | Val | Gly | Glu | Gly | Thr | His | Phe | Leu | 50 | 55 | 60 | |
| Ile | Pro | Trp | Val | Gln | Lys | Pro | Ile | Ile | Phe | Asp | Cys | Arg | Ser | Arg | Pro | 65 | 70 | 75 | 80 |
| Arg | Asn | Val | Pro | Val | Ile | Thr | Gly | Ser | Lys | Asp | Leu | Gln | Asn | Val | Asn | 85 | 90 | 95 | |
| Ile | Thr | Leu | Arg | Ile | Leu | Phe | Arg | Pro | Val | Ala | Ser | Gln | Leu | Pro | Arg | 100 | 105 | 110 | |
| Ile | Phe | Thr | Ser | Ile | Gly | Glu | Asp | Tyr | Asp | Glu | Arg | Val | Leu | Pro | Ser | 115 | 120 | 125 | |
| Ile | Thr | Thr | Glu | Ile | Leu | Lys | Ser | Val | Val | Ala | Arg | Phe | Asp | Ala | Gly | 130 | 135 | 140 | |
| Glu | Leu | Ile | Thr | Gln | Arg | Glu | Leu | Val | Ser | Arg | Gln | Val | Ser | Asp | Asp | 145 | 150 | 155 | 160 |
| Leu | Thr | Glu | Arg | Ala | Ala | Thr | Phe | Gly | Leu | Ile | Leu | Asp | Asp | Val | Ser | 165 | 170 | 175 | |
| Leu | Thr | His | Leu | Thr | Phe | Gly | Lys | Glu | Phe | Thr | Glu | Ala | Val | Glu | Ala | 180 | 185 | 190 | |
| Lys | Gln | Val | Ala | Gln | Gln | Glu | Ala | Glu | Arg | Ala | Arg | Phe | Val | Val | Glu | 195 | 200 | 205 | |
| Lys | Ala | Glu | Gln | Gln | Lys | Lys | Ala | Ala | Ile | Ile | Ser | Ala | Glu | Gly | Asp | 210 | 215 | 220 | |
| Ser | Lys | Ala | Ala | Glu | Leu | Ile | Ala | Asn | Ser | Leu | Ala | Thr | Ala | Gly | Asp | 225 | 230 | 235 | 240 |
| Gly | Leu | Ile | Glu | Leu | Arg | Lys | Leu | Glu | Ala | Ala | Glu | Asp | Ile | Ala | Tyr | 245 | 250 | 255 | |

1362

Gln Leu Ser Arg Ser Arg Asn Ile Thr Tyr Leu Pro Ala Gly Gln Ser
 260 265 270

Val Leu Leu Gln Leu Pro Gln
 275

<210> 1320

<211> 406

<212> PRT

<213> Homo sapiens

<400> 1320

Val Thr Ala Cys Ala Ala Pro Ala Ala Trp Leu Pro Ile Leu Val Ala
 1 5 10 15

Asp Ile Trp Ser Ser Tyr Asn Met Ala Asp Ile Asp Asn Lys Glu Gln
 20 25 30

Ser Glu Leu Asp Gln Asp Leu Asp Asp Val Glu Glu Val Glu Glu Glu
 35 40 45

Glu Thr Gly Glu Glu Thr Lys Leu Lys Ala Arg Gln Leu Thr Val Gln
 50 55 60

Met Met Gln Asn Pro Gln Ile Leu Ala Ala Leu Gln Glu Arg Leu Asp
 65 70 75 80

Gly Leu Val Glu Thr Pro Thr Gly Tyr Ile Glu Ser Leu Pro Arg Val
 85 90 95

Val Lys Arg Arg Val Asn Ala Leu Lys Asn Leu Gln Val Lys Cys Ala
 100 105 110

Gln Ile Glu Ala Lys Phe Tyr Glu Glu Val His Asp Leu Glu Arg Lys
 115 120 125

Tyr Ala Val Leu Tyr Gln Pro Leu Phe Asp Lys Arg Phe Glu Ile Ile
 130 135 140

Asn Ala Ile Tyr Glu Pro Thr Glu Glu Glu Cys Glu Trp Lys Pro Asp
 145 150 155 160

Glu Glu Asp Glu Ile Ser Glu Glu Leu Lys Glu Lys Ala Lys Ile Glu
 165 170 175

Asp Glu Lys Lys Asp Glu Glu Lys Glu Asp Pro Lys Gly Ile Pro Glu
 180 185 190

1363

Phe Trp Leu Thr Val Phe Lys Asn Val Asp Leu Leu Ser Asp Met Val
 195 200 205
 Gln Glu His Asp Glu Pro Ile Leu Lys His Leu Lys Asp Ile Lys Val
 210 215 220
 Lys Phe Ser Asp Ala Gly Gln Pro Met Ser Phe Val Leu Glu Phe His
 225 230 235 240
 Phe Glu Pro Asn Glu Tyr Phe Thr Asn Glu Val Leu Thr Lys Thr Tyr
 245 250 255
 Arg Met Arg Ser Glu Pro Asp Asp Ser Asp Pro Phe Ser Phe Asp Gly
 260 265 270
 Pro Glu Ile Met Gly Cys Thr Gly Cys Gln Ile Asp Trp Lys Lys Gly
 275 280 285
 Lys Asn Val Thr Leu Lys Thr Ile Lys Lys Lys Gln Lys His Lys Gly
 290 295 300
 Arg Gly Thr Val Arg Thr Val Thr Lys Thr Val Ser Asn Asp Ser Phe
 305 310 315 320
 Phe Asn Phe Phe Ala Pro Pro Glu Val Pro Glu Ser Gly Asp Leu Asp
 325 330 335
 Asp Asp Ala Glu Ala Ile Leu Ala Ala Asp Phe Glu Ile Gly His Phe
 340 345 350
 Leu Arg Glu Arg Ile Ile Pro Arg Ser Val Leu Tyr Phe Thr Gly Glu
 355 360 365
 Ala Ile Glu Asp Asp Asp Asp Asp Tyr Asp Glu Glu Gly Glu Glu Ala
 370 375 380
 Asp Glu Gly Tyr Gln Leu Phe Glu Glu Val Lys Ser Cys Ser Lys Leu
 385 390 395 400
 Phe Gln Arg Trp Leu Gln
 405

<210> 1321

<211> 173

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1364

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1321

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Ala | Cys | Ser | Leu | Leu | Pro | Glu | Met | Pro | Arg | Ile | Leu | Thr | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Pro | Ser | Ser | Arg | Met | Ile | Val | Leu | Arg | Leu | Met | Pro | Val | Gly | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Arg | Pro | Ile | Val | Thr | Ser | Phe | Gly | Gly | Cys | Ser | Thr | Ala | Pro | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Asn | Phe | Pro | Leu | Pro | Xaa | Pro | Ala | Leu | Arg | Gln | Ser | Arg | Ser | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Ala | Val | Val | Gly | Val | Ser | Ser | Val | Ser | Arg | Leu | Leu | Gly | Arg | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Pro | Gln | Leu | Gly | Arg | Pro | Met | Ser | Ser | Gly | Ala | His | Gly | Glu | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Ser | Ala | Arg | Met | Trp | Lys | Thr | Leu | Thr | Phe | Phe | Val | Ala | Leu | Pro |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gly | Val | Ala | Val | Ser | Met | Leu | Asn | Val | Tyr | Leu | Lys | Ser | His | His | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Glu | His | Glu | Arg | Pro | Glu | Phe | Ile | Ala | Tyr | Pro | His | Leu | Arg | Ile | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Lys | Pro | Phe | Pro | Trp | Gly | Asp | Gly | Asn | His | Thr | Leu | Phe | His | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | His | Val | Asn | Pro | Leu | Pro | Thr | Gly | Tyr | Glu | Asp | Glu | | | |
| | | | 165 | | | | | | 170 | | | | | | |

<210> 1322

<211> 209

<212> PRT

<213> Homo sapiens

<400> 1322

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Thr | Gln | Ala | Ala | Ser | Val | Glu | Ala | Val | Lys | Met | Leu | Asp | Glu | Ile |
| 1 | | | | | 5 | | | | | 10 | | | | 15 | |
| Leu | Leu | Gln | Leu | Ser | Ala | Ser | Val | Pro | Val | Asp | Val | Met | Pro | Gly | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

1365

Phe Asp Pro Thr Asn Tyr Thr Leu Pro Gln Gln Pro Leu His Pro Cys
 35 40 45
 Met Phe Pro Leu Ala Thr Ala Tyr Ser Thr Leu Gln Leu Val Thr Asn
 50 55 60
 Pro Tyr Gln Ala Thr Ile Asp Gly Val Arg Phe Leu Gly Thr Ser Gly
 65 70 75 80
 Gln Asn Val Ser Asp Ile Phe Arg Tyr Ser Ser Met Glu Asp His Leu
 85 90 95
 Glu Ile Leu Glu Trp Thr Leu Arg Val Arg His Ile Ser Pro Thr Ala
 100 105 110
 Pro Asp Thr Leu Gly Cys Tyr Pro Phe Tyr Lys Thr Asp Pro Phe Ile
 115 120 125
 Phe Pro Glu Cys Pro His Val Tyr Phe Cys Gly Asn Thr Pro Ser Phe
 130 135 140
 Gly Ser Lys Ile Ile Arg Gly Pro Glu Asp Gln Thr Val Leu Leu Val
 145 150 155 160
 Thr Val Pro Asp Phe Ser Ala Thr Gln Thr Ala Cys Leu Val Asn Leu
 165 170 175
 Arg Ser Leu Ala Cys Gln Pro Ile Ser Phe Ser Gly Phe Gly Ala Glu
 180 185 190
 Asp Asp Asp Leu Gly Gly Leu Gly Trp Ala Pro Asp Ser Lys Lys Trp
 195 200 205
 Phe

<210> 1323

<211> 291

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

1366

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1323

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Val | Ala | Thr | Thr | His | Glu | Pro | Ala | Ser | Val | Pro | Ala | Pro | Gln |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Gly | Asp | Leu | Leu | Ser | Gly | Ala | Glu | Pro | Glu | Gly | Gly | Asn | Xaa | Ala | Arg |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Pro | Pro | Gly | Ala | Arg | Glu | Gln | Pro | Gln | Ser | Pro | Pro | Pro | Ala | Arg |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Gly | Gly | Ala | Gly | Ser | Leu | Ala | Thr | Xaa | Ala | Pro | Pro | Ser | Ser | Gly | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Cys | Pro | Gly | Cys | Phe | Arg | Leu | Arg | Leu | Trp | Met | Leu | Arg | Leu | Ser |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Glu | Arg | Asn | Met | Lys | Val | Leu | Leu | Ala | Ala | Ala | Leu | Ile | Ala | Gly | Ser |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Val | Phe | Phe | Leu | Leu | Leu | Pro | Gly | Pro | Ser | Ala | Ala | Asp | Glu | Lys | Lys |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Lys | Gly | Pro | Lys | Val | Thr | Val | Lys | Val | Tyr | Phe | Asp | Leu | Arg | Ile | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Asp | Glu | Asp | Val | Gly | Arg | Val | Ile | Phe | Gly | Leu | Phe | Gly | Lys | Thr | Val |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Pro | Lys | Thr | Val | Asp | Asn | Phe | Val | Ala | Leu | Ala | Thr | Gly | Glu | Lys | Gly |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Phe | Gly | Tyr | Lys | Asn | Ser | Lys | Phe | His | Arg | Val | Ile | Lys | Asp | Phe | Met |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Gln | Gly | Gly | Asp | Phe | Thr | Arg | Gly | Asp | Gly | Thr | Gly | Gly | Lys | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ile | Tyr | Gly | Glu | Arg | Phe | Pro | Asp | Glu | Asn | Phe | Lys | Leu | Lys | His | Tyr |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Gly | Pro | Gly | Trp | Val | Ser | Met | Ala | Asn | Ala | Gly | Lys | Asp | Thr | Asn | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Gln | Phe | Phe | Ile | Thr | Thr | Val | Lys | Thr | Ala | Trp | Leu | Asp | Gly | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Val | Val | Phe | Gly | Lys | Val | Leu | Glu | Gly | Met | Glu | Val | Val | Arg | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |

1367

Val Glu Ser Thr Lys Thr Asp Ser Arg Asp Lys Pro Leu Lys Asp Val
 260 265 270

Ile Ile Ala Asp Cys Gly Lys Ile Glu Val Glu Lys Pro Phe Ala Ile
 275 280 285

Ala Lys Glu
 290

<210> 1324

<211> 150

<212> PRT

<213> Homo sapiens

<400> 1324

Glu Cys Leu Val Arg Ser Lys Asn Ile Thr Gln Ile Val Gly His Ser
 1 5 10 15

Gly Cys Glu Ala Lys Ser Ile Gln Asn Arg Ala Cys Leu Gly Gln Cys
 20 25 30

Phe Ser Tyr Ser Val Pro Asn Thr Phe Pro Gln Ser Thr Glu Ser Leu
 35 40 45

Val His Cys Asp Ser Cys Met Pro Ala Gln Ser Met Trp Glu Ile Val
 50 55 60

Thr Leu Glu Cys Pro Gly His Glu Glu Val Pro Arg Val Asp Lys Leu
 65 70 75 80

Val Glu Lys Ile Leu His Cys Ser Cys Gln Ala Cys Gly Lys Glu Pro
 85 90 95

Ser His Glu Gly Leu Ser Val Tyr Val Gln Gly Glu Asp Gly Pro Gly
 100 105 110

Ser Gln Pro Gly Thr His Pro His Pro His Pro His Pro His Pro Gly
 115 120 125

Gly Gln Thr Pro Glu Pro Glu Asp Pro Pro Gly Ala Pro His Thr Glu
 130 135 140

Glu Glu Gly Ala Glu Asp
 145 150

<210> 1325

<211> 56

1368

<212> PRT

<213> Homo sapiens

<400> 1325

Glu Ile Asn Ile Ser Arg Lys Gly Glu Ser Arg Phe Tyr Lys Met Ser
 1 5 10 15

Gln Leu Ser Asn Ile Trp Gly Ser Asp Ser Phe Phe Val Arg Thr Phe
 20 25 30

Glu Thr Ser Lys Gln Pro Leu Phe Leu Lys Asn Ser Gly Phe Thr Leu
 35 40 45

Thr His Val Ser Phe Thr Pro Phe
 50 55

<210> 1326

<211> 486

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (438)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (447)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1326

Arg Leu Pro Leu Gly Ser Arg Ser Pro Ser Glu Ala Ala Gly Ala Glu
 1 5 10 15

Thr Ala Pro Ser Ser Leu Ser Ala Ala Met Thr Pro Leu Val Ser Arg
 20 25 30

Leu Xaa Arg Leu Trp Ala Ile Met Arg Lys Pro Arg Ala Ala Val Gly
 35 40 45

Ser Gly His Arg Lys Gln Ala Ala Ser Gln Glu Gly Arg Gln Lys His
 50 55 60

1369

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|
| Ala | Lys | Asn | Asn | Ser | Gln | Ala | Lys | Pro | Ser | Ala | Cys | Asp | Gly | Leu | Ala | | 65 | 70 | 75 | 80 |
| Arg | Gln | Pro | Glu | Glu | Val | Val | Leu | Gln | Ala | Ser | Val | Ser | Ser | Tyr | His | | 85 | 90 | 95 | |
| Leu | Phe | Arg | Asp | Val | Ala | Glu | Val | Thr | Ala | Phe | Arg | Gly | Ser | Leu | Leu | | 100 | 105 | 110 | |
| Ser | Trp | Tyr | Asp | Gln | Glu | Lys | Arg | Asp | Leu | Pro | Trp | Arg | Arg | Arg | Ala | | 115 | 120 | 125 | |
| Glu | Asp | Glu | Met | Asp | Leu | Asp | Arg | Arg | Ala | Tyr | Ala | Val | Trp | Val | Ser | | 130 | 135 | 140 | |
| Glu | Val | Met | Leu | Gln | Gln | Thr | Gln | Val | Ala | Thr | Val | Ile | Asn | Tyr | Tyr | | 145 | 150 | 155 | 160 |
| Thr | Gly | Trp | Met | Gln | Lys | Trp | Pro | Thr | Leu | Gln | Asp | Leu | Ala | Ser | Ala | | 165 | 170 | 175 | |
| Ser | Leu | Glu | Glu | Val | Asn | Gln | Leu | Trp | Ala | Gly | Leu | Gly | Tyr | Tyr | Ser | | 180 | 185 | 190 | |
| Arg | Gly | Arg | Arg | Leu | Gln | Glu | Gly | Ala | Arg | Lys | Val | Val | Glu | Glu | Leu | | 195 | 200 | 205 | |
| Gly | Gly | His | Met | Pro | Arg | Thr | Ala | Glu | Thr | Leu | Gln | Gln | Leu | Leu | Pro | | 210 | 215 | 220 | |
| Gly | Val | Gly | Arg | Tyr | Thr | Ala | Gly | Ala | Ile | Ala | Ser | Ile | Ala | Phe | Gly | | 225 | 230 | 235 | 240 |
| Gln | Ala | Thr | Gly | Val | Val | Asp | Gly | Asn | Val | Ala | Arg | Val | Leu | Cys | Arg | | 245 | 250 | 255 | |
| Val | Arg | Ala | Ile | Gly | Ala | Asp | Pro | Ser | Ser | Thr | Leu | Val | Ser | Gln | Gln | | 260 | 265 | 270 | |
| Leu | Trp | Gly | Leu | Ala | Gln | Gln | Leu | Val | Asp | Pro | Ala | Arg | Pro | Gly | Asp | | 275 | 280 | 285 | |
| Phe | Asn | Gln | Ala | Ala | Met | Glu | Leu | Gly | Ala | Thr | Val | Cys | Thr | Pro | Gln | | 290 | 295 | 300 | |
| Arg | Pro | Leu | Cys | Ser | Gln | Cys | Pro | Val | Glu | Ser | Leu | Cys | Arg | Ala | Arg | | 305 | 310 | 315 | 320 |
| Gln | Arg | Val | Glu | Gln | Glu | Gln | Leu | Leu | Ala | Ser | Gly | Ser | Leu | Ser | Gly | | 325 | 330 | 335 | |

1370

Ser Pro Asp Val Glu Glu Cys Ala Pro Asn Thr Gly Gln Cys His Leu
 340 345 350
 Cys Leu Pro Pro Ser Glu Pro Trp Asp Gln Thr Leu Gly Val Val Asn
 355 360 365
 Phe Pro Arg Lys Ala Ser Arg Lys Pro Pro Arg Glu Glu Ser Ser Ala
 370 375 380
 Thr Cys Val Leu Glu Gln Pro Gly Ala Leu Gly Ala Gln Ile Leu Leu
 385 390 395 400
 Val Gln Arg Pro Asn Ser Gly Leu Leu Ala Gly Leu Trp Glu Phe Pro
 405 410 415
 Ser Val Thr Trp Glu Pro Ser Glu Gln Leu Gln Arg Lys Ala Leu Leu
 420 425 430
 Gln Glu Leu Gln Arg Xaa Ala Gly Pro Leu Pro Ala Thr His Xaa Arg
 435 440 445
 His Leu Gly Glu Val Val His Thr Phe Ser His Ile Lys Leu Thr Tyr
 450 455 460
 Gln Val Tyr Gly Leu Ala Leu Glu Gly Gln Thr Pro Val Thr Thr Val
 465 470 475 480
 Pro Pro Gly Ala Arg Cys
 485

<210> 1327

<211> 88

<212> PRT

<213> Homo sapiens

<400> 1327

Lys Thr Leu Phe Thr Tyr Ser Phe His Gly Tyr Asn Thr Leu Ala Asp
 1 5 10 15
 Phe Leu Leu Ala Leu Gly Ala Met Ile Leu Ile Thr Phe Cys Lys Val
 20 25 30
 Thr Asn Val Ile His Ser Thr Leu Cys Gly Ser His Leu Phe Arg Leu
 35 40 45
 Met Cys Phe Gly Glu Arg Lys Lys Phe Leu Ala Glu Tyr Tyr Phe Glu
 50 55 60
 Leu Ser Arg Thr Leu Ser His Gln Arg Gln Phe Phe Ser Val Gln Phe

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|----|--|--|--|--|--|--|--|--|--|--|----|
| 65 | | | | | | 70 | | | | | | | | | | | | | 75 | | | | | | | | | | | 80 |
| Pro | Ile | Pro | Asp | Asn | Leu | Leu | Lys | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 85 | | | | | | | | | | | | | | | | | | | | | | | | | |
| <210> 1328 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <211> 424 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <212> PRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <213> Homo sapiens | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <400> 1328 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ile | Arg | Val | Ser | Phe | Met | Asn | Asn | Gln | Lys | Gln | Gln | Lys | Pro | Thr | Leu | | | | | | | | | | | | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | | | | | | | | | | | | |
| Ser | Gly | Gln | Arg | Phe | Lys | Thr | Arg | Lys | Arg | Asp | Glu | Lys | Glu | Arg | Phe | | | | | | | | | | | | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | | | | | | | | | | | | |
| Asp | Pro | Thr | Gln | Phe | Gln | Asp | Cys | Ile | Ile | Gln | Gly | Leu | Thr | Glu | Thr | | | | | | | | | | | | | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | | | | | | | | | | | | | |
| Gly | Thr | Asp | Leu | Glu | Ala | Val | Ala | Lys | Phe | Leu | Asp | Ala | Ser | Gly | Ala | | | | | | | | | | | | | | | |
| | | | 50 | | | | 55 | | | | | 60 | | | | | | | | | | | | | | | | | | |
| Lys | Leu | Asp | Tyr | Arg | Arg | Tyr | Ala | Glu | Thr | Leu | Phe | Asp | Ile | Leu | Val | | | | | | | | | | | | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | | | | | | | | | | | | | |
| Ala | Gly | Gly | Met | Leu | Ala | Pro | Gly | Gly | Thr | Leu | Ala | Asp | Asp | Met | Met | | | | | | | | | | | | | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | | | | | | | | | | | | |
| Arg | Thr | Asp | Val | Cys | Val | Phe | Ala | Ala | Gln | Glu | Asp | Leu | Glu | Thr | Met | | | | | | | | | | | | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | | | | | | | | | | | | |
| Gln | Ala | Phe | Ala | Gln | Val | Phe | Asn | Lys | Leu | Ile | Arg | Arg | Tyr | Lys | Tyr | | | | | | | | | | | | | | | |
| | | | 115 | | | | 120 | | | | | 125 | | | | | | | | | | | | | | | | | | |
| Leu | Glu | Lys | Gly | Phe | Glu | Asp | Glu | Val | Lys | Lys | Leu | Leu | Leu | Phe | Leu | | | | | | | | | | | | | | | |
| | | | 130 | | | 135 | | | | | 140 | | | | | | | | | | | | | | | | | | | |
| Lys | Gly | Phe | Ser | Glu | Ser | Glu | Arg | Asn | Lys | Leu | Ala | Met | Leu | Thr | Gly | | | | | | | | | | | | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | | | | | | | | | | | | |
| Val | Leu | Leu | Ala | Asn | Gly | Thr | Leu | Asn | Ala | Ser | Ile | Leu | Asn | Ser | Leu | | | | | | | | | | | | | | | |
| | | | | 165 | | | | 170 | | | | | 175 | | | | | | | | | | | | | | | | | |
| Tyr | Asn | Glu | Asn | Leu | Val | Lys | Glu | Gly | Val | Ser | Ala | Ala | Phe | Ala | Val | | | | | | | | | | | | | | | |
| | | | 180 | | | | 185 | | | | | | | | | | | | | | | | | | | | | | | |

1372

Ala Ser Leu Arg Lys Val Ser Met Asp Asn Arg Leu Met Glu Leu Phe
 210 215 220
 Pro Ala Asn Lys Gln Ser Val Glu His Phe Thr Lys Tyr Phe Thr Glu
 225 230 235 240
 Ala Gly Leu Lys Glu Leu Ser Glu Tyr Val Arg Asn Gln Gln Thr Ile
 245 250 255
 Gly Ala Arg Lys Glu Leu Gln Lys Glu Leu Gln Glu Gln Met Ser Arg
 260 265 270
 Gly Asp Pro Phe Lys Asp Ile Ile Leu Tyr Val Lys Glu Glu Met Lys
 275 280 285
 Lys Asn Asn Ile Pro Glu Pro Val Val Ile Gly Ile Val Trp Ser Ser
 290 295 300
 Val Met Ser Thr Val Glu Trp Asn Lys Lys Glu Glu Leu Val Ala Glu
 305 310 315 320
 Gln Ala Ile Lys His Leu Lys Gln Tyr Ser Pro Leu Leu Ala Ala Phe
 325 330 335
 Thr Thr Gln Gly Gln Ser Glu Leu Thr Leu Leu Leu Lys Ile Gln Glu
 340 345 350
 Tyr Cys Tyr Asp Asn Ile His Phe Met Lys Ala Phe Gln Lys Ile Val
 355 360 365
 Val Leu Phe Tyr Lys Ala Glu Val Leu Ser Glu Glu Pro Ile Leu Lys
 370 375 380
 Trp Tyr Lys Asp Ala His Val Ala Lys Gly Lys Ser Val Phe Leu Glu
 385 390 395 400
 Gln Met Lys Lys Phe Val Glu Trp Leu Lys Asn Ala Glu Glu Glu Ser
 405 410 415
 Glu Ser Glu Ala Glu Glu Gly Asp
 420

<210> 1329

<211> 558

<212> PRT

<213> Homo sapiens

<400> 1329

1373

Trp Tyr Cys Ser Val Gly Leu Ala Ser Thr Ala Gly Glu Gln Ala Ala
 1 5 10 15
 Ala Val Ala Ala Ala Phe Ser Leu His Pro Asp Tyr Ala Met Leu Gly
 20 25 30
 Phe Val Gly Arg Val Ala Ala Ala Pro Ala Ser Gly Ala Leu Arg Arg
 35 40 45
 Leu Thr Pro Ser Ala Ser Leu Pro Pro Ala Gln Leu Leu Leu Arg Ala
 50 55 60
 Ala Pro Thr Ala Val His Pro Val Arg Asp Tyr Ala Ala Gln Thr Ser
 65 70 75 80
 Pro Ser Pro Lys Ala Gly Ala Ala Thr Gly Arg Ile Val Ala Val Ile
 85 90 95
 Gly Ala Val Val Asp Val Gln Phe Asp Glu Gly Leu Pro Pro Ile Leu
 100 105 110
 Asn Ala Leu Glu Val Gln Gly Arg Glu Thr Arg Leu Val Leu Glu Val
 115 120 125
 Ala Gln His Leu Gly Glu Ser Thr Val Arg Thr Ile Ala Met Asp Gly
 130 135 140
 Thr Glu Gly Leu Val Arg Gly Gln Lys Val Leu Asp Ser Gly Ala Pro
 145 150 155 160
 Ile Lys Ile Pro Val Gly Pro Glu Thr Leu Gly Arg Ile Met Asn Val
 165 170 175
 Ile Gly Glu Pro Ile Asp Glu Arg Gly Pro Ile Lys Thr Lys Gln Phe
 180 185 190
 Ala Pro Ile His Ala Glu Ala Pro Glu Phe Met Glu Met Ser Val Glu
 195 200 205
 Gln Glu Ile Leu Val Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro
 210 215 220
 Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly
 225 230 235 240
 Lys Thr Val Leu Ile Met Glu Leu Ile Asn Asn Val Ala Lys Ala His
 245 250 255
 Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
 260 265 270

1374

```

Asn Asp Leu Tyr His Glu Met Ile Glu Ser Gly Val Ile Asn Leu Lys
    275                      280                      285

Asp Ala Thr Ser Lys Val Ala Leu Val Tyr Gly Gln Met Asn Glu Pro
    290                      295                      300

Pro Gly Ala Arg Ala Arg Val Ala Leu Thr Gly Leu Thr Val Ala Glu
305                      310                      315                      320

Tyr Phe Arg Asp Gln Glu Gly Gln Asp Val Leu Leu Phe Ile Asp Asn
    325                      330                      335

Ile Phe Arg Phe Thr Gln Ala Gly Ser Glu Val Ser Ala Leu Leu Gly
    340                      345                      350

Arg Ile Pro Ser Ala Val Gly Tyr Gln Pro Thr Leu Ala Thr Asp Met
    355                      360                      365

Gly Thr Met Gln Glu Arg Ile Thr Thr Thr Lys Lys Gly Ser Ile Thr
    370                      375                      380

Ser Val Gln Ala Ile Tyr Val Pro Ala Asp Asp Leu Thr Asp Pro Ala
385                      390                      395                      400

Pro Ala Thr Thr Phe Ala His Leu Asp Ala Thr Thr Val Leu Ser Arg
    405                      410                      415

Ala Ile Ala Glu Leu Gly Ile Tyr Pro Ala Val Asp Pro Leu Asp Ser
    420                      425                      430

Thr Ser Arg Ile Met Asp Pro Asn Ile Val Gly Ser Glu His Tyr Asp
    435                      440                      445

Val Ala Arg Gly Val Gln Lys Ile Leu Gln Asp Tyr Lys Ser Leu Gln
    450                      455                      460

Asp Ile Ile Ala Ile Leu Gly Met Asp Glu Leu Ser Glu Glu Asp Lys
465                      470                      475                      480

Leu Thr Val Ser Arg Ala Arg Lys Ile Gln Arg Phe Leu Ser Gln Pro
    485                      490                      495

Phe Gln Val Ala Glu Val Phe Thr Gly His Met Gly Lys Leu Val Pro
    500                      505                      510

Leu Lys Glu Thr Ile Lys Gly Phe Gln Gln Ile Leu Ala Gly Glu Tyr
    515                      520                      525

Asp His Leu Pro Glu Gln Ala Phe Tyr Met Val Gly Pro Ile Glu Glu
    530                      535                      540

```

1375

Ala Val Ala Lys Ala Asp Lys Leu Ala Glu Glu His Ser Ser
 545 550 555

<210> 1330

<211> 134

<212> PRT

<213> Homo sapiens

<400> 1330

Thr Thr Pro Leu Ser Gln Ile Val Ala Arg Gly Leu Ile Ala Arg Gly
 1 5 10 15

Val Pro Gly Ala Ile Val Asn Val Ser Ser Gln Cys Ser Gln Arg Ala
 20 25 30

Val Thr Asn His Ser Val Tyr Cys Ser Thr Lys Gly Ala Leu Asp Met
 35 40 45

Leu Thr Lys Val Met Ala Leu Glu Leu Gly Pro His Lys Ile Arg Val
 50 55 60

Asn Ala Val Asn Pro Thr Val Val Met Thr Ser Met Gly Gln Ala Thr
 65 70 75 80

Trp Ser Asp Pro His Lys Ala Lys Thr Met Leu Asn Arg Ile Pro Leu
 85 90 95

Gly Lys Phe Ala Glu Val Glu His Val Val Asn Ala Ile Leu Phe Leu
 100 105 110

Leu Ser Asp Arg Ser Gly Met Thr Thr Gly Ser Thr Leu Pro Val Glu
 115 120 125

Gly Gly Phe Trp Ala Cys
 130

<210> 1331

<211> 188

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1376

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1331

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | His | Glu | Pro | Ser | Arg | Cys | Arg | Ser | Arg | Thr | Ala | Ala | Val | Cys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Pro | Pro | Cys | Pro | Pro | Trp | Arg | Arg | Pro | Arg | Gly | Pro | Trp | Thr |
| | | | 20 | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Ser | Pro | Pro | Trp | Pro | Pro | Ala | Arg | Pro | Arg | Trp | Gln | Trp | Thr |
| | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ala | Leu | Asn | Ser | Thr | Ala | Ala | Pro | Pro | Arg | Ser | Pro | Pro | Ala | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Pro | Cys | Arg | Pro | Asn | Ser | Ala | Arg | Arg | Lys | Arg | Arg | Pro | Pro | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Cys | Arg | Ala | Ser | Ser | Gly | Trp | Leu | Ala | Ala | Trp | Lys | Pro | Ser | Arg |
| | | | | 85 | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Gly | Pro | Ala | Ala | Arg | Pro | Arg | Arg | Pro | Val | Pro | Asp | Thr | Ser | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Ser | Pro | Val | Gln | Ala | Ala | Val | His | Phe | Val | Gly | Tyr | Lys | Ile |
| | | | 115 | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | His | Gly | Pro | Ala | Met | Xaa | Leu | Xaa | Phe | Leu | Leu | Gln | Leu | Arg | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Gly | Pro | Gly | Leu | Pro | Arg | Glu | Asn | Val | Leu | Glu | Thr | Ala | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Leu | Ala | Trp | Phe | Ile | Cys | Pro | Gly | Ser | Gly | Ser | Asp | Ser | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Glu | Thr | Ser | Val | Ala | Leu | Ser | Tyr | Trp | Gly |
| | | | 180 | | | | | 185 | | | |

<210> 1332

<211> 237

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

1377

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1332

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Asp Asp Arg Arg Xaa Asp Ala Glu Ala Asp Lys Met Ala Ala Ala Ala
 1           5           10           15

Val Gln Gly Gly Arg Ser Gly Gly Ser Gly Gly Cys Ser Gly Ala Gly
          20           25           30

Gly Ala Ser Asn Cys Gly Thr Gly Ser Gly Arg Ser Gly Leu Leu Asp
          35           40           45

Lys Trp Lys Ile Asp Asp Lys Pro Val Lys Ile Asp Lys Trp Asp Gly
          50           55           60

Ser Ala Val Lys Asn Ser Leu Asp Asp Ser Ala Lys Lys Val Leu Leu
          65           70           75           80

Glu Lys Tyr Lys Tyr Val Glu Asn Phe Gly Leu Ile Asp Gly Arg Leu
          85           90           95

Thr Ile Cys Thr Ile Ser Cys Phe Phe Ala Ile Val Ala Leu Ile Trp
          100          105          110

Asp Tyr Met His Pro Phe Pro Glu Ser Lys Pro Val Leu Ala Leu Cys
          115          120          125

Val Ile Ser Tyr Phe Val Met Met Gly Ile Leu Thr Ile Tyr Thr Ser
          130          135          140

Tyr Lys Glu Lys Ser Ile Phe Leu Val Ala His Arg Lys Asp Pro Thr
          145          150          155          160

Gly Met Asp Pro Asp Asp Ile Trp Gln Leu Ser Ser Ser Leu Lys Arg
          165          170          175

Phe Asp Asp Lys Tyr Thr Leu Lys Leu Thr Phe Ile Ser Gly Arg Thr
          180          185          190

Lys Gln Gln Arg Glu Ala Glu Phe Thr Lys Ser Ile Ala Lys Phe Phe
          195          200          205

Asp His Ser Gly Thr Leu Val Met Asp Ala Tyr Glu Pro Glu Ile Ser
          210          215          220

Arg Leu His Asp Ser Leu Ala Ile Glu Arg Lys Ile Lys
          225          230          235

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<210> 1333

1378

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1333

Thr Thr Ala Asn Pro Leu Lys Thr Arg Gly Leu Ala Leu Val Ala Gln
 1 5 10 15

Pro Lys Val Ala Leu Gln Ile Phe Glu Arg Ala Thr Ala Thr Phe Leu
 20 25 30

Pro Ser Gln Leu Ser Leu Asp Phe Ser Glu Ser Gly Tyr Cys Tyr Pro
 35 40 45

Asn Val Cys Leu Tyr Glu Cys Ile
 50 55

<210> 1334

<211> 207

<212> PRT

<213> Homo sapiens

<400> 1334

Ser His Pro Ala Cys Ala Lys Val Glu Tyr Ala Tyr Ser Asp Asn Ser
 1 5 10 15

Leu Asp Pro Asp Asp Glu Asp Ser Asp Tyr His Gln Glu Ala Tyr Lys
 20 25 30

Glu Ser Tyr Lys Asp Arg Arg Arg Arg Ala His Thr Gln Ala Glu Gln
 35 40 45

Lys Arg Arg Asp Ala Ile Lys Arg Gly Tyr Asp Asp Leu Gln Thr Ile
 50 55 60

Val Pro Thr Cys Gln Gln Gln Asp Phe Ser Ile Gly Ser Gln Lys Leu
 65 70 75 80

Ser Lys Ala Ile Val Leu Gln Lys Thr Ile Asp Tyr Ile Gln Phe Leu
 85 90 95

His Lys Glu Lys Lys Lys Gln Glu Glu Glu Val Ser Thr Leu Arg Lys
 100 105 110

Asp Val Thr Ala Leu Lys Ile Met Lys Val Asn Tyr Glu Gln Ile Val
 115 120 125

Lys Ala His Gln Asp Asn Pro His Glu Gly Glu Asp Gln Val Ser Asp
 130 135 140

1379

Gln Val Lys Phe Asn Val Phe Gln Gly Ile Met Asp Ser Leu Phe Gln
145 150 155 160

Ser Phe Asn Ala Ser Ile Ser Val Ala Ser Phe Gln Glu Leu Ser Ala
165 170 175

Cys Val Phe Ser Trp Ile Glu Glu His Cys Lys Pro Gln Thr Leu Arg
180 185 190

Glu Ile Val Ile Gly Val Leu His Gln Leu Lys Asn Gln Leu Tyr
195 200 205

<210> 1335

<211> 1005

<212> PRT

<213> Homo sapiens

<400> 1335

Arg Val Leu Gln Tyr Val Val Pro Glu Val Lys Asp Leu Tyr Asn Trp
1 5 10 15

Leu Glu Val Glu Phe Asn Pro Leu Lys Leu Cys Glu Arg Val Thr Lys
20 25 30

Val Leu Asn Trp Val Arg Glu Gln Pro Glu Lys Glu Pro Glu Leu Gln
35 40 45

Gln Tyr Val Pro Gln Leu Gln Asn Asn Thr Ile Leu Arg Leu Leu Gln
50 55 60

Gln Val Ser Gln Ile Tyr Gln Ser Ile Glu Phe Ser Arg Leu Thr Ser
65 70 75 80

Leu Val Pro Phe Val Asp Ala Phe Gln Leu Glu Arg Ala Ile Val Asp
85 90 95

Ala Ala Arg His Cys Asp Leu Gln Val Arg Ile Asp His Thr Ser Arg
100 105 110

Thr Leu Ser Phe Gly Ser Asp Leu Asn Tyr Ala Thr Arg Glu Asp Ala
115 120 125

Pro Ile Gly Pro His Leu Gln Ser Met Pro Ser Glu Gln Ile Arg Asn
130 135 140

Gln Leu Thr Ala Met Ser Ser Val Leu Ala Lys Ala Leu Glu Val Ile
145 150 155 160

1380

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Pro | Ala | His | Ile | Leu | Gln | Glu | Lys | Glu | Glu | Gln | His | Gln | Leu | Ala | 165 | 170 | 175 | |
| Val | Thr | Ala | Tyr | Leu | Lys | Asn | Ser | Arg | Lys | Glu | His | Gln | Arg | Ile | Leu | 180 | 185 | 190 | |
| Ala | Arg | Arg | Gln | Thr | Ile | Glu | Glu | Arg | Lys | Glu | Arg | Leu | Glu | Ser | Leu | 195 | 200 | 205 | |
| Asn | Ile | Gln | Arg | Glu | Lys | Glu | Glu | Leu | Glu | Gln | Arg | Glu | Ala | Glu | Leu | 210 | 215 | 220 | |
| Gln | Lys | Val | Arg | Lys | Ala | Glu | Glu | Glu | Arg | Leu | Arg | Gln | Glu | Ala | Lys | 225 | 230 | 235 | 240 |
| Glu | Arg | Glu | Lys | Glu | Arg | Ile | Leu | Gln | Glu | His | Glu | Gln | Ile | Lys | Lys | 245 | 250 | 255 | |
| Lys | Thr | Val | Arg | Glu | Arg | Leu | Glu | Gln | Ile | Lys | Lys | Thr | Glu | Leu | Gly | 260 | 265 | 270 | |
| Ala | Lys | Ala | Phe | Lys | Asp | Ile | Asp | Ile | Glu | Asp | Leu | Glu | Glu | Leu | Asp | 275 | 280 | 285 | |
| Pro | Asp | Phe | Ile | Met | Ala | Lys | Gln | Val | Glu | Gln | Leu | Glu | Lys | Glu | Lys | 290 | 295 | 300 | |
| Lys | Glu | Leu | Gln | Glu | Arg | Leu | Lys | Asn | Gln | Glu | Lys | Lys | Ile | Asp | Tyr | 305 | 310 | 315 | 320 |
| Phe | Glu | Arg | Ala | Lys | Arg | Leu | Glu | Glu | Ile | Pro | Leu | Ile | Lys | Ser | Ala | 325 | 330 | 335 | |
| Tyr | Glu | Glu | Gln | Arg | Ile | Lys | Asp | Met | Asp | Leu | Trp | Glu | Gln | Gln | Glu | 340 | 345 | 350 | |
| Glu | Glu | Arg | Ile | Thr | Thr | Met | Gln | Leu | Glu | Arg | Glu | Lys | Ala | Leu | Glu | 355 | 360 | 365 | |
| His | Lys | Asn | Arg | Met | Ser | Arg | Met | Leu | Glu | Asp | Arg | Asp | Leu | Phe | Val | 370 | 375 | 380 | |
| Met | Arg | Leu | Lys | Ala | Ala | Arg | Gln | Ser | Val | Tyr | Glu | Glu | Lys | Leu | Lys | 385 | 390 | 395 | 400 |
| Gln | Phe | Glu | Glu | Arg | Leu | Ala | Glu | Glu | Arg | His | Asn | Arg | Leu | Glu | Glu | 405 | 410 | 415 | |
| Arg | Lys | Arg | Gln | Arg | Lys | Glu | Glu | Arg | Arg | Ile | Thr | Tyr | Tyr | Arg | Glu | 420 | 425 | 430 | |

1381

Lys Glu Glu Glu Glu Gln Arg Arg Ala Glu Glu Gln Met Leu Lys Glu
 435 440 445
 Arg Glu Glu Arg Glu Arg Ala Glu Arg Ala Lys Arg Glu Glu Glu Leu
 450 455 460
 Arg Glu Tyr Gln Glu Arg Val Lys Lys Leu Glu Glu Val Glu Arg Lys
 465 470 475 480
 Lys Arg Gln Arg Glu Leu Glu Ile Glu Glu Arg Glu Arg Arg Arg Glu
 485 490 495
 Glu Glu Arg Arg Leu Gly Asp Ser Ser Leu Ser Arg Lys Asp Ser Arg
 500 505 510
 Trp Gly Asp Arg Asp Ser Glu Gly Thr Trp Arg Lys Gly Pro Glu Ala
 515 520 525
 Asp Ser Glu Trp Arg Arg Gly Pro Pro Glu Lys Glu Trp Arg Arg Gly
 530 535 540
 Glu Gly Arg Asp Glu Asp Arg Ser His Arg Arg Asp Glu Glu Arg Pro
 545 550 555 560
 Arg Arg Leu Gly Asp Asp Glu Asp Arg Glu Pro Ser Leu Arg Pro Asp
 565 570 575
 Asp Asp Arg Val Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg
 580 585 590
 Arg Gly Pro Glu Glu Asp Arg Phe Ser Arg Arg Gly Ala Asp Asp Asp
 595 600 605
 Arg Pro Ser Trp Arg Asn Thr Asp Asp Asp Arg Pro Pro Arg Arg Ile
 610 615 620
 Ala Asp Glu Asp Arg Gly Asn Trp Arg His Ala Asp Asp Asp Arg Pro
 625 630 635 640
 Pro Arg Arg Gly Leu Asp Glu Asp Arg Gly Ser Trp Arg Thr Ala Asp
 645 650 655
 Glu Asp Arg Gly Pro Arg Arg Gly Met Asp Asp Asp Arg Gly Pro Arg
 660 665 670
 Arg Gly Gly Ala Asp Asp Glu Arg Ser Ser Trp Arg Asn Ala Asp Asp
 675 680 685
 Asp Arg Gly Pro Arg Arg Gly Leu Asp Asp Asp Arg Gly Pro Arg Arg
 690 695 700

1382

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Met | Asp | Asp | Asp | Arg | Gly | Pro | Arg | Arg | Gly | Met | Asp | Asp | Asp | Arg | |
| 705 | | | | | | 710 | | | | 715 | | | | | 720 | |
| Gly | Pro | Arg | Arg | Gly | Met | Asp | Asp | Asp | Arg | Gly | Pro | Arg | Arg | Gly | Leu | |
| | | | | 725 | | | | | 730 | | | | | 735 | | |
| Asp | Asp | Asp | Arg | Gly | Pro | Trp | Arg | Asn | Ala | Asp | Asp | Asp | Arg | Ile | Pro | |
| | | | 740 | | | | | 745 | | | | | | 750 | | |
| Arg | Arg | Gly | Ala | Glu | Asp | Asp | Arg | Gly | Pro | Trp | Arg | Asn | Met | Asp | Asp | |
| | | 755 | | | | | | 760 | | | | | 765 | | | |
| Asp | Arg | Leu | Ser | Arg | Arg | Ala | Asp | Asp | Asp | Arg | Phe | Pro | Arg | Arg | Gly | |
| | 770 | | | | | 775 | | | | | 780 | | | | | |
| Asp | Asp | Ser | Arg | Pro | Gly | Pro | Trp | Arg | Pro | Leu | Val | Lys | Pro | Gly | Gly | |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 | |
| Trp | Arg | Glu | Lys | Glu | Lys | Ala | Arg | Glu | Glu | Ser | Trp | Gly | Pro | Pro | Arg | |
| | | | | 805 | | | | | 810 | | | | | | 815 | |
| Glu | Ser | Arg | Pro | Ser | Glu | Glu | Arg | Glu | Trp | Asp | Arg | Glu | Lys | Glu | Arg | |
| | | | 820 | | | | | 825 | | | | | 830 | | | |
| Asp | Arg | Asp | Asn | Gln | Asp | Arg | Glu | Glu | Asn | Asp | Lys | Asp | Pro | Glu | Arg | |
| | | 835 | | | | | 840 | | | | | 845 | | | | |
| Glu | Arg | Asp | Arg | Glu | Arg | Asp | Val | Asp | Arg | Glu | Asp | Arg | Phe | Arg | Arg | |
| | 850 | | | | | 855 | | | | 860 | | | | | | |
| Pro | Arg | Asp | Glu | Gly | Gly | Trp | Arg | Arg | Gly | Pro | Ala | Glu | Glu | Ser | Ser | |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 | |
| Ser | Trp | Arg | Asp | Ser | Ser | Arg | Arg | Asp | Asp | Arg | Asp | Arg | Asp | Asp | Arg | |
| | | | | 885 | | | | | 890 | | | | | 895 | | |
| Arg | Arg | Glu | Arg | Asp | Asp | Arg | Arg | Asp | Leu | Arg | Glu | Arg | Arg | Asp | Leu | |
| | | 900 | | | | | | 905 | | | | | | 910 | | |
| Arg | Asp | Asp | Arg | Asp | Arg | Arg | Gly | Pro | Pro | Leu | Arg | Ser | Glu | Arg | Glu | |
| | 915 | | | | | | 920 | | | | | 925 | | | | |
| Glu | Val | Ser | Ser | Trp | Arg | Arg | Ala | Asp | Asp | Arg | Lys | Asp | Asp | Arg | Val | |
| | 930 | | | | | 935 | | | | | 940 | | | | | |
| Glu | Glu | Arg | Asp | Pro | Pro | Arg | Arg | Val | Pro | Pro | Pro | Ala | Leu | Ser | Arg | |
| 945 | | | | | 950 | | | | | 955 | | | | | 960 | |
| Asp | Arg | Glu | Arg | Asp | Arg | Asp | Arg | Glu | Arg | Glu | Gly | Glu | Lys | Glu | Lys | |
| | | | | 965 | | | | | 970 | | | | | 975 | | |

1383

Ala Ser Trp Arg Ala Glu Lys Asp Arg Glu Ser Leu Arg Arg Thr Lys
 980 985 990

Asn Glu Thr Asp Glu Asp Gly Trp Thr Thr Val Arg Arg
 995 1000 1005

<210> 1336

<211> 231

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1336

Ala Gly Ile His Pro Met Asn Ser Ile Ser Ser Leu Asp Arg Thr Arg
 1 5 10 15

1384

```

Met Met Thr Pro Phe Met Gly Ile Ser Pro Leu Pro Gly Gly Glu Arg
      20                      25                      30

Phe Pro Tyr Pro Ser Phe His Trp Asp Pro Ile Arg Asp Pro Leu Arg
      35                      40                      45

Asp Pro Tyr Xaa Glu Leu Asp Ile His Arg Arg Asp Pro Leu Gly Xaa
      50                      55                      60

Asp Phe Leu Leu Arg Asn Asp Pro Xaa His Arg Leu Ser Thr Xaa Arg
      65                      70                      75                      80

Leu Xaa Xaa Ala Asp Arg Ser Phe Arg Asp Arg Glu Pro His Asp Tyr
      85                      90                      95

Ser His His His His His His His His Pro Leu Ser Val Asp Pro Arg
      100                      105                      110

Arg Glu His Glu Arg Xaa Gly His Leu Asp Glu Arg Glu Arg Leu His
      115                      120                      125

Met Leu Arg Glu Asp Tyr Glu His Thr Arg Leu His Ser Val His Pro
      130                      135                      140

Ala Ser Leu Asp Gly His Leu Pro His Pro Ser Leu Ile Thr Pro Gly
      145                      150                      155                      160

Leu Pro Ser Met His Tyr Pro Arg Ile Ser Pro Thr Ala Gly Asn Gln
      165                      170                      175

Asn Gly Leu Leu Asn Lys Thr Pro Pro Thr Ala Ala Leu Ser Ala Pro
      180                      185                      190

Pro Pro Leu Ile Ser Thr Leu Gly Gly Arg Pro Val Ser Pro Arg Arg
      195                      200                      205

Thr Thr Pro Leu Ser Ala Glu Ile Arg Glu Arg Pro Pro Ser His Thr
      210                      215                      220

Leu Lys Asp Ile Glu Ala Arg
      225                      230

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<210> 1337

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1337

1385

Gly Val Glu Gly Leu Lys Asp Ala Gln Met Arg Asp Leu Leu Ser Pro
 1 5 10 15
 Pro Thr Asp Asn Arg Pro Gly Gln Met Asp Asn Arg Ser Lys Leu Arg
 20 25 30
 Asn Ile Val Glu Leu Arg Leu Ala Gly Leu Asp Ile Thr Asp Ala Ser
 35 40 45
 Leu Arg Leu Ile Ile Arg His Met Pro Leu Leu Ser Lys Leu His Leu
 50 55 60
 Ser Tyr Cys Asn His Val Thr Asp Gln Ser Ile Asn Leu Leu Thr Ala
 65 70 75 80
 Val Gly Thr Thr Thr Arg Asp Ser Leu Thr Glu Ile Asn Leu Ser Asp
 85 90 95
 Cys Asn Lys Val Thr Asp Gln Cys Leu Ser Phe Phe Lys Arg Cys Gly
 100 105 110
 Asn Ile Cys His Ile Asp Leu Arg Tyr Cys Lys Gln Val Thr Lys Glu
 115 120 125
 Gly Cys Glu Gln Phe Ile Ala Glu Met Ser Val Ser Val Gln Phe Gly
 130 135 140
 Gln Val Glu Glu Lys Leu Leu Gln Lys Leu Ser
 145 150 155

<210> 1338

<211> 328

<212> PRT

<213> Homo sapiens

<400> 1338

Asn Asn Ser Gly Val Met Pro Glu Met Pro Glu Asp Met Glu Gln Glu
 1 5 10 15
 Glu Val Asn Ile Pro Asn Arg Arg Val Leu Val Thr Gly Ala Thr Gly
 20 25 30
 Leu Leu Gly Arg Ala Val His Lys Glu Phe Gln Gln Asn Asn Trp His
 35 40 45
 Ala Val Gly Cys Gly Phe Arg Arg Ala Arg Pro Lys Phe Glu Gln Val
 50 55 60
 Asn Leu Leu Asp Ser Asn Ala Val His His Ile Ile His Asp Phe Gln

1386

| | | | | | | |
|---|-----|----|--|-----|--|-----|
| 65 | | 70 | | 75 | | 80 |
| Pro His Val Ile Val His Cys Ala Ala Glu Arg Arg Pro Asp Val Val | | | | | | |
| | 85 | | | 90 | | 95 |
| Glu Asn Gln Pro Asp Ala Ala Ser Gln Leu Asn Val Asp Ala Ser Gly | | | | | | |
| | 100 | | | 105 | | 110 |
| Asn Leu Ala Lys Glu Ala Ala Ala Val Gly Ala Phe Leu Ile Tyr Ile | | | | | | |
| | 115 | | | 120 | | 125 |
| Ser Ser Asp Tyr Val Phe Asp Gly Thr Asn Pro Pro Tyr Arg Glu Glu | | | | | | |
| | 130 | | | 135 | | 140 |
| Asp Ile Pro Ala Pro Leu Asn Leu Tyr Gly Lys Thr Lys Leu Asp Gly | | | | | | |
| | 145 | | | 150 | | 155 |
| Glu Lys Ala Val Leu Glu Asn Asn Leu Gly Ala Ala Val Leu Arg Ile | | | | | | |
| | 165 | | | 170 | | 175 |
| Pro Ile Leu Tyr Gly Glu Val Glu Lys Leu Glu Glu Ser Ala Val Thr | | | | | | |
| | 180 | | | 185 | | 190 |
| Val Met Phe Asp Lys Val Gln Phe Ser Asn Lys Ser Ala Asn Met Asp | | | | | | |
| | 195 | | | 200 | | 205 |
| His Trp Gln Gln Arg Phe Pro Thr His Val Lys Asp Val Ala Thr Val | | | | | | |
| | 210 | | | 215 | | 220 |
| Cys Arg Gln Leu Ala Glu Lys Arg Met Leu Asp Pro Ser Ile Lys Gly | | | | | | |
| | 225 | | | 230 | | 235 |
| Thr Phe His Trp Ser Gly Asn Glu Gln Met Thr Lys Tyr Glu Met Ala | | | | | | |
| | 245 | | | 250 | | 255 |
| Cys Ala Ile Ala Asp Ala Phe Asn Leu Pro Ser Ser His Leu Arg Pro | | | | | | |
| | 260 | | | 265 | | 270 |
| Ile Thr Asp Ser Pro Val Leu Gly Ala Gln Arg Pro Arg Asn Ala Gln | | | | | | |
| | 275 | | | 280 | | 285 |
| Leu Asp Cys Ser Lys Leu Glu Thr Leu Gly Ile Gly Gln Arg Thr Pro | | | | | | |
| | 290 | | | 295 | | 300 |
| Phe Arg Ile Gly Ile Lys Glu Ser Leu Trp Pro Phe Leu Ile Asp Lys | | | | | | |
| | 305 | | | 310 | | 315 |
| Arg Trp Arg Gln Thr Val Phe His | | | | | | |
| | 325 | | | | | |

1387

<210> 1339

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1339

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | His | Pro | Phe | Ala | Val | Thr | Ser | Tyr | Gly | Lys | Asn | Leu | Tyr | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Asp | Trp | Lys | Met | Asn | Ser | Val | Val | Ala | Leu | Asp | Leu | Ala | Ile | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Glu | Thr | Asp | Ala | Phe | Gln | Pro | His | Lys | Gln | Thr | Arg | Leu | Tyr | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Thr | Thr | Ala | Leu | Ser | Gln | Cys | Pro | Gln | Ala | Ile | Thr | Thr | Ala | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |

<210> 1340

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1340

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Met | Ala | Val | Glu | Ser | Arg | Val | Thr | Gln | Glu | Glu | Ile | Lys | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Pro | Glu | Lys | Pro | Ile | Asp | Arg | Glu | Lys | Thr | Cys | Pro | Leu | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Val | Phe | Thr | Thr | Asn | Asn | Gly | Arg | His | His | Arg | Met | Asp | Glu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Gly | Asn | Val | Pro | Ser | Ser | Glu | Leu | Gln | Ile | Tyr | Thr | Trp | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Ala | Thr | Leu | Lys | Glu | Leu | Thr | Ser | Leu | Val | Lys | Glu | Val | Tyr | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Ala | Arg | Lys | Lys | Gly | Thr | His | Phe | Asn | Phe | Ala | Ile | Val | Phe | Thr |

1388

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 85 | | | | | | 90 | | | | | 95 | | | | |
| Asp | Val | Lys | Arg | Pro | Gly | Tyr | Arg | Val | Lys | Glu | Ile | Gly | Ser | Thr | Met | | | | |
| | | | 100 | | | | | | 105 | | | | 110 | | | | | | |
| Ser | Gly | Arg | Lys | Gly | Thr | Asp | Asp | Ser | Met | Thr | Leu | Gln | Ser | Gln | Lys | | | | |
| | | | 115 | | | | 120 | | | | | 125 | | | | | | | |
| Phe | Gln | Ile | Gly | Asp | Tyr | Leu | Asp | Ile | Ala | Ile | Thr | Pro | Pro | Asn | Arg | | | | |
| | | | 130 | | | | 135 | | | | 140 | | | | | | | | |
| Ala | Pro | Pro | Pro | Ser | Gly | Arg | Met | Arg | Pro | Tyr | | | | | | | | | |
| | | | | | | 150 | | | | 155 | | | | | | | | | |

<210> 1341

<211> 72

<212> PRT

<213> Homo sapiens

<400> 1341

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Ala | Gln | Leu | Pro | Ser | Ser | Ser | Phe | Leu | Arg | His | Arg | Gly | Val | Phe | Leu | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | |
| Thr | Pro | Leu | Leu | Ala | Met | Ser | Ser | His | Lys | Thr | Phe | Arg | Ile | Lys | Arg | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |
| Phe | Leu | Ala | Lys | Lys | Gln | Lys | Gln | Asn | Arg | Pro | Ile | Pro | Gln | Trp | Ile | | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | | |
| Arg | Met | Lys | Thr | Gly | Asn | Lys | Ile | Arg | Tyr | Asn | Ser | Lys | Arg | Arg | His | | | | |
| | | | 50 | | | 55 | | | | | 60 | | | | | | | | |
| Trp | Arg | Arg | Thr | Lys | Leu | Gly | Leu | | | | | | | | | | | | |
| | | | 65 | | | 70 | | | | | | | | | | | | | |

<210> 1342

<211> 270

<212> PRT

<213> Homo sapiens

<400> 1342

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Leu | Lys | Val | Ala | Gln | Thr | Asp | Gly | Val | Asn | Val | Asp | Met | His | Leu | Lys | | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | | |
| Gln | Ile | Glu | Ile | Lys | Lys | Phe | Lys | Tyr | Gly | Ile | Glu | Glu | His | Gly | Lys | | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | | |

1389

Val Lys Met Arg Gly Gly Leu Leu Arg Thr Tyr Ile Ile Ser Ile Leu
 35 40 45
 Phe Lys Ser Ile Phe Glu Val Ala Phe Leu Leu Ile Gln Trp Tyr Ile
 50 55 60
 Tyr Gly Phe Ser Leu Ser Ala Val Tyr Thr Cys Lys Arg Asp Pro Cys
 65 70 75 80
 Pro His Gln Val Asp Cys Phe Leu Ser Arg Pro Thr Glu Lys Thr Ile
 85 90 95
 Phe Ile Ile Phe Met Leu Val Val Ser Leu Val Ser Leu Ala Leu Asn
 100 105 110
 Ile Ile Glu Leu Phe Tyr Val Phe Phe Lys Gly Val Lys Asp Arg Val
 115 120 125
 Lys Gly Lys Ser Asp Pro Tyr His Ala Thr Ser Gly Ala Leu Ser Pro
 130 135 140
 Ala Lys Asp Cys Gly Ser Gln Lys Tyr Ala Tyr Phe Asn Gly Cys Ser
 145 150 155 160
 Ser Pro Thr Ala Pro Leu Ser Pro Met Ser Pro Pro Gly Tyr Lys Leu
 165 170 175
 Val Thr Gly Asp Arg Asn Asn Ser Ser Cys Arg Asn Tyr Asn Lys Gln
 180 185 190
 Ala Ser Glu Gln Asn Trp Ala Asn Tyr Ser Ala Glu Gln Asn Arg Met
 195 200 205
 Gly Gln Ala Gly Ser Thr Ile Ser Asn Ser His Ala Gln Pro Phe Asp
 210 215 220
 Phe Pro Asp Asp Asn Gln Asn Ser Lys Lys Leu Ala Ala Gly His Glu
 225 230 235 240
 Leu Gln Pro Leu Ala Ile Val Asp Gln Arg Pro Ser Ser Arg Ala Ser
 245 250 255
 Ser Arg Ala Ser Ser Arg Pro Arg Pro Asp Asp Leu Glu Ile
 260 265 270

<210> 1343

<211> 94

<212> PRT

<213> Homo sapiens

1390

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1343

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Leu | Arg | Ser | Pro | Ser | Arg | Ser | Pro | Ser | Pro | Pro | Pro | Lys | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Trp | Thr | Thr | Gly | Gly | Ser | Leu | Cys | Glu | Gln | Leu | Ala | Phe | Arg |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Pro | Leu | Ser | Val | Phe | Lys | Gln | Lys | Val | Glu | Gly | Ala | Thr | Lys | Gln |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Val | Arg | Ala | Ser | Xaa | Cys | Arg | Pro | Leu | Pro | Cys | Ser | Ser | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Phe | Ala | Ser | Ala | Ser | Ser | Val | Met | Phe | Cys | Leu | Glu | Phe | Tyr | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Phe | Phe | Ser | Gly | Tyr | Phe | Ser | Val | Phe | Gln | Pro | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | |

<210> 1344

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1344

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ser | Thr | Arg | Ala | Leu | Trp | Lys | Pro | Asn | His | Val | His | Val | Cys | Val |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

1391

Cys Val Cys Ala Ser Phe Glu Pro Pro Ser Thr Ala Ala Ser Ser His
 20 25 30
 Asp Thr Lys Leu Leu Ile Ser Thr Phe Leu Trp Val Ala Gln Gly Leu
 35 40 45
 Ile Ala Ser His Ser Ile Thr Arg Ile Glu Ala Arg His Gly Gly Ala
 50 55 60
 Cys Leu Val Val Pro Ala Lys Leu Gly Arg Leu Glu Gly Arg Glu Gly
 65 70 75 80
 Ser Leu Trp Ser Pro Gly Arg Leu Glu Gly Trp Gln Trp Ser His Gly
 85 90 95
 Ser Gly Gly His Trp His Phe Gln Pro Gly Gly Gly Arg Val Glu Thr
 100 105 110
 Phe Val Leu Gln Lys Xaa Lys Lys Lys Xaa Xaa Gly Gly
 115 120 125

<210> 1345

<211> 131

<212> PRT

<213> Homo sapiens

<400> 1345

Pro Arg Val Arg Arg Leu Arg Glu Asp Asp Arg Arg Gly Phe Leu Ser
 1 5 10 15
 Phe Arg Ala Asp Ser Ala His Ala Ser Met Val Asn Val Pro Lys Thr
 20 25 30
 Arg Arg Thr Phe Cys Lys Lys Cys Gly Lys His Gln Pro His Lys Val
 35 40 45
 Thr Gln Tyr Lys Lys Gly Lys Asp Ser Leu Tyr Ala Gln Gly Lys Arg
 50 55 60
 Arg Tyr Asp Arg Lys Gln Ser Gly Tyr Gly Gly Gln Thr Lys Pro Ile
 65 70 75 80
 Phe Arg Lys Lys Ala Lys Thr Thr Lys Lys Ile Val Leu Arg Leu Glu
 85 90 95
 Cys Val Glu Pro Asn Cys Arg Ser Lys Arg Met Leu Ala Ile Lys Arg
 100 105 110
 Cys Lys His Phe Glu Leu Gly Gly Asp Lys Lys Arg Lys Gly Gln Val

1392

115 120 125
 Ile Gln Phe
 130

<210> 1346
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 1346
 Asn Lys Arg Asn Cys Lys Phe Pro Leu Leu Lys Ile Thr Lys Ile Thr
 1 5 10 15
 Glu Thr Lys Glu Glu Ile Arg Ile Trp Gly Ile Val Leu Asn Asn Leu
 20 25 30
 Val Val Lys Lys Asn Asn Cys Ala Cys Leu Asp Leu Asn Lys Pro Pro
 35 40 45
 Ser Lys Cys Glu Gly Ser Ser Asn Phe Ser Lys His Met Lys Val Leu
 50 55 60
 Ile His Phe Asp Lys Gly Pro Leu Lys Lys Ser
 65 70 75

<210> 1347
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 1347
 Gly Val Ala Arg Ala Gln Pro Val Pro Ala Val Leu Ser Trp Leu Leu
 1 5 10 15
 Ala Leu Leu Arg Cys Ala Ala Thr Met Leu Ser Leu Arg Val Pro Leu
 20 25 30
 Ala Pro Ile Thr Asp Pro Gln Gln Leu Gln Leu Ser Pro Leu Lys Gly
 35 40 45
 Leu Ser Leu Val Asp Lys Glu Asn Thr Pro Pro Ala Leu Ser Gly Thr
 50 55 60
 Arg Val Leu Ala Ser Lys Thr Ala Arg Arg Ile Phe Gln Glu Pro Thr
 65 70 75 80

1393

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Lys | Thr | Lys | Ala | Ala | Ala | Pro | Gly | Val | Glu | Asp | Glu | Pro | Leu | 85 | 90 | 95 | |
| Leu | Arg | Glu | Asn | Pro | Arg | Arg | Phe | Val | Ile | Phe | Pro | Ile | Glu | Tyr | His | 100 | 105 | 110 | |
| Asp | Ile | Trp | Gln | Met | Tyr | Lys | Lys | Ala | Glu | Ala | Ser | Phe | Trp | Thr | Ala | 115 | 120 | 125 | |
| Glu | Glu | Val | Asp | Leu | Ser | Lys | Asp | Ile | Gln | His | Trp | Glu | Ser | Leu | Lys | 130 | 135 | 140 | |
| Pro | Glu | Glu | Arg | Tyr | Phe | Ile | Ser | His | Val | Leu | Ala | Phe | Phe | Ala | Ala | 145 | 150 | 155 | 160 |
| Ser | Asp | Gly | Ile | Val | Asn | Glu | Asn | Leu | Val | Glu | Arg | Phe | Ser | Gln | Glu | 165 | 170 | 175 | |
| Val | Gln | Ile | Thr | Glu | Ala | Arg | Cys | Phe | Tyr | Gly | Phe | Gln | Ile | Ala | Met | 180 | 185 | 190 | |
| Glu | Asn | Ile | His | Ser | Glu | Met | Tyr | Ser | Leu | Leu | Ile | Asp | Thr | Tyr | Ile | 195 | 200 | 205 | |
| Lys | Asp | Pro | Lys | Glu | Arg | Glu | Phe | Leu | Phe | Asn | Ala | Ile | Glu | Thr | Met | 210 | 215 | 220 | |
| Pro | Cys | Val | Lys | Lys | Lys | Ala | Asp | Trp | Ala | Leu | Arg | Trp | Ile | Gly | Asp | 225 | 230 | 235 | 240 |
| Lys | Glu | Ala | Thr | Tyr | Gly | Glu | Arg | Val | Val | Ala | Phe | Ala | Ala | Val | Glu | 245 | 250 | 255 | |
| Gly | Ile | Phe | Phe | Ser | Gly | Ser | Phe | Ala | Ser | Ile | Phe | Trp | Leu | Lys | Lys | 260 | 265 | 270 | |
| Arg | Gly | Leu | Met | Pro | Gly | Leu | Thr | Phe | Ser | Asn | Glu | Leu | Ile | Ser | Arg | 275 | 280 | 285 | |
| Asp | Glu | Gly | Leu | His | Cys | Asp | Phe | Ala | Cys | Leu | Met | Phe | Lys | His | Leu | 290 | 295 | 300 | |
| Val | His | Lys | Pro | Ser | Glu | Glu | Arg | Val | Arg | Glu | Ile | Ile | Ile | Asn | Ala | 305 | 310 | 315 | 320 |
| Val | Arg | Ile | Glu | Gln | Glu | Phe | Leu | Thr | Glu | Ala | Leu | Pro | Val | Lys | Leu | 325 | 330 | 335 | |
| Ile | Gly | Met | Asn | Cys | Thr | Leu | Met | Lys | Gln | Tyr | Ile | Glu | Phe | Val | Ala | 340 | 345 | 350 | |

1394

Asp Arg Leu Met Leu Glu Leu Gly Phe Ser Lys Val Phe Arg Val Glu
 355 360 365

Asn Pro Phe Asp Phe Met Glu Asn Ile Ser Leu Glu Gly Lys Thr Asn
 370 375 380

Phe Phe Glu Lys Arg Val Gly Glu Tyr Gln Arg Met Gly Val Met Ser
 385 390 395 400

Ser Pro Thr Glu Asn Ser Phe Thr Leu Asp Ala Asp Phe
 405 410

<210> 1348

<211> 243

<212> PRT

<213> Homo sapiens

<400> 1348

Thr Gly Asn Lys Met Gln Asp Pro Asn Ala Asp Thr Glu Trp Asn Asp
 1 5 10 15

Ile Leu Arg Lys Lys Gly Ile Leu Pro Pro Lys Glu Ser Leu Lys Glu
 20 25 30

Leu Glu Glu Glu Ala Glu Glu Glu Gln Arg Ile Leu Gln Gln Ser Val
 35 40 45

Val Lys Thr Tyr Glu Asp Met Thr Leu Glu Glu Leu Glu Asp His Glu
 50 55 60

Asp Glu Phe Asn Glu Glu Asp Glu Arg Ala Ile Glu Met Tyr Arg Arg
 65 70 75 80

Arg Arg Leu Ala Glu Trp Lys Ala Thr Lys Leu Lys Asn Lys Phe Gly
 85 90 95

Glu Val Leu Glu Ile Ser Gly Lys Asp Tyr Val Gln Glu Val Thr Lys
 100 105 110

Ala Gly Glu Gly Leu Trp Val Ile Leu His Leu Tyr Lys Gln Gly Ile
 115 120 125

Pro Leu Cys Ala Leu Ile Asn Gln His Leu Ser Gly Leu Ala Arg Lys
 130 135 140

Phe Pro Asp Val Lys Phe Ile Lys Ala Ile Ser Thr Thr Cys Ile Pro
 145 150 155 160

Asn Tyr Pro Asp Arg Asn Leu Pro Thr Ile Phe Val Tyr Leu Glu Gly

1395

| | | | | | |
|---|-----|--|-----|--|-----|
| | 165 | | 170 | | 175 |
| Asp Ile Lys Ala Gln Phe Ile Gly Pro Leu Val Phe Gly Gly Met Asn | | | | | |
| | 180 | | 185 | | 190 |
| Leu Thr Arg Asp Glu Leu Glu Trp Lys Leu Ser Glu Ser Gly Ala Ile | | | | | |
| | 195 | | 200 | | 205 |
| Met Thr Asp Leu Glu Glu Asn Pro Lys Lys Pro Ile Glu Asp Val Leu | | | | | |
| | 210 | | 215 | | 220 |
| Leu Ser Ser Val Arg Arg Ser Val Leu Met Lys Arg Asp Ser Asp Ser | | | | | |
| | 225 | | 230 | | 235 |
| | | | | | 240 |
| Glu Gly Asp | | | | | |

<210> 1349

<211> 326

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1349

| |
|---|
| Arg Met Ala Thr Pro Leu Pro Pro Pro Ser Pro Arg His Leu Arg Leu |
| 1 5 10 15 |

| |
|---|
| Leu Arg Leu Leu Leu Ser Gly Leu Val Leu Gly Ala Ala Leu Arg Gly |
| 20 25 30 |

| |
|---|
| Ala Ala Ala Gly His Pro Asp Val Ala Ala Cys Pro Gly Ser Leu Asp |
| 35 40 45 |

| |
|---|
| Cys Ala Leu Lys Arg Arg Ala Arg Cys Pro Pro Gly Ala His Ala Cys |
| 50 55 60 |

| |
|---|
| Gly Pro Cys Leu Gln Pro Phe Gln Glu Asp Gln Gln Gly Leu Cys Val |
| 65 70 75 80 |

Pro Arg Met Arg Arg Pro Pro Gly Gly Gly Arg Pro Gln Pro Arg Leu

1396

| 85 | | | | | | | | | | 90 | | | | | 95 | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Glu | Asp | Glu | Ile | Asp | Phe | Leu | Ala | Gln | Glu | Leu | Ala | Arg | Lys | Glu | Ser | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Gly | His | Ser | Thr | Pro | Pro | Leu | Pro | Lys | Asp | Arg | Gln | Arg | Leu | Pro | Glu | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Pro | Ala | Thr | Leu | Gly | Phe | Ser | Ala | Xaa | Gly | Gln | Gly | Leu | Xaa | Leu | Gly | | | | |
| | 130 | | | | | | 135 | | | | | 140 | | | | | | | |
| Leu | Pro | Ser | Thr | Pro | Gly | Thr | Pro | Thr | Pro | Thr | Pro | His | Thr | Ser | Leu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Gly | Ser | Pro | Val | Ser | Ser | Asp | Pro | Val | His | Met | Ser | Pro | Leu | Glu | Pro | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | |
| Arg | Gly | Gly | Gln | Gly | Asp | Gly | Leu | Ala | Leu | Val | Leu | Ile | Leu | Ala | Phe | | | | |
| | | | 180 | | | | | 185 | | | | | | 190 | | | | | |
| Cys | Val | Ala | Gly | Ala | Ala | Ala | Leu | Ser | Val | Ala | Ser | Leu | Cys | Trp | Cys | | | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | | | |
| Arg | Leu | Gln | Arg | Glu | Ile | Arg | Leu | Thr | Gln | Lys | Ala | Asp | Tyr | Ala | Thr | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | |
| Ala | Lys | Ala | Pro | Gly | Ser | Pro | Ala | Ala | Pro | Arg | Ile | Ser | Pro | Gly | Asp | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | | |
| Gln | Arg | Leu | Ala | Gln | Ser | Ala | Glu | Met | Tyr | His | Tyr | Gln | His | Gln | Arg | | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | |
| Gln | Gln | Met | Leu | Cys | Leu | Glu | Arg | His | Lys | Glu | Pro | Pro | Lys | Glu | Leu | | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | | |
| Asp | Thr | Ala | Ser | Ser | Asp | Glu | Glu | Asn | Glu | Asp | Gly | Asp | Phe | Thr | Val | | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | | | |
| Tyr | Glu | Cys | Pro | Gly | Leu | Ala | Pro | Thr | Gly | Glu | Met | Glu | Val | Arg | Asn | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | |
| Pro | Leu | Phe | Asp | His | Ala | Ala | Leu | Ser | Ala | Pro | Leu | Pro | Ala | Pro | Ser | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | | |
| Ser | Pro | Pro | Ala | Leu | Pro | | | | | | | | | | | | | | |
| | | | | 325 | | | | | | | | | | | | | | | |

<210> 1350

<211> 62

1397

<212> PRT

<213> Homo sapiens

<400> 1350

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Lys | Ser | Asp | Thr | Pro | Pro | Cys | Val | Ser | Lys | Asn | Leu | Val | Pro | Pro |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Thr | Ser | Leu | Thr | Leu | Asn | Ile | Phe | His | Trp | Ile | Leu | Asp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Gly | Arg | Thr | Gly | Ala | Ser | Gly | Gly | Pro | Trp | Leu | Phe | Lys | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ile | Ile | Cys | Asp | Ser | Asn | His | Lys | Phe | Leu | Ala | Asn | Phe |
| 50 | | | | | | 55 | | | | | 60 | | |

<210> 1351

<211> 312

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (299)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1351

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Arg | Pro | Gly | Cys | Gly | Asn | Lys | Met | Ala | Gly | Lys | Lys | Asn | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Ser | Leu | Ala | Val | Tyr | Ala | Glu | Asp | Ser | Glu | Pro | Glu | Ser | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Ala | Gly | Ile | Glu | Ala | Val | Gly | Ser | Ala | Ala | Glu | Glu | Lys | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Val | Ser | Asp | Ala | Tyr | Gly | Glu | Asp | Asp | Phe | Ser | Arg | Leu | Gly |
| 50 | | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Glu | Asp | Gly | Tyr | Glu | Glu | Glu | Glu | Asp | Glu | Asn | Ser | Arg | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Asp | Asp | Asp | Ser | Glu | Thr | Glu | Lys | Pro | Glu | Ala | Asp | Asp | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asp | Asn | Thr | Glu | Ala | Glu | Lys | Arg | Asp | Pro | Gln | Glu | Leu | Val | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Phe | Ser | Glu | Arg | Val | Arg | Asn | Met | Ser | Pro | Asp | Glu | Ile | Lys | Ile |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1398

| 115 | | | | | 120 | | | | | 125 | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Pro | Pro | Glu | Pro | Pro | Gly | Arg | Cys | Ser | Asn | His | Leu | Gln | Asp | Lys | Ile | |
| 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gln | Lys | Leu | Tyr | Glu | Arg | Lys | Ile | Lys | Glu | Gly | Met | Asp | Met | Asn | Tyr | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Ile | Ile | Gln | Arg | Lys | Lys | Glu | Phe | Arg | Asn | Pro | Ser | Ile | Tyr | Glu | Lys | |
| | | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ile | Gln | Phe | Cys | Ala | Ile | Asp | Glu | Leu | Gly | Thr | Asn | Tyr | Pro | Lys | |
| | | | | | 180 | | | | | 185 | | | | | 190 | |
| Asp | Met | Phe | Asp | Pro | His | Gly | Trp | Ser | Glu | Asp | Ser | Tyr | Tyr | Glu | Ala | |
| | | | | | 195 | | | | | 200 | | | | | 205 | |
| Leu | Ala | Lys | Ala | Gln | Lys | Ile | Glu | Met | Asp | Lys | Leu | Glu | Lys | Ala | Lys | |
| 210 | | | | | 215 | | | | | 220 | | | | | | |
| Lys | Glu | Arg | Thr | Lys | Ile | Glu | Phe | Val | Thr | Gly | Thr | Lys | Lys | Gly | Thr | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Thr | Thr | Asn | Ala | Thr | Ser | Thr | Thr | Thr | Thr | Thr | Ala | Ser | Thr | Ala | Val | |
| | | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Asp | Ala | Gln | Lys | Arg | Lys | Ser | Lys | Trp | Asp | Ser | Ala | Ile | Pro | Val | |
| 260 | | | | | 265 | | | | | 270 | | | | | | |
| Thr | Thr | Ile | Ser | Pro | Ala | His | His | Pro | His | His | His | Ser | His | Pro | Ala | |
| 275 | | | | | 280 | | | | | 285 | | | | | | |
| Ser | Cys | Cys | His | Gly | His | His | Gln | Arg | Gln | Xaa | Ser | Lys | Asp | His | Arg | |
| 290 | | | | | 295 | | | | | 300 | | | | | | |
| His | Leu | Cys | Cys | Gly | Ala | Pro | Leu | | | | | | | | | |
| 305 | | | | | 310 | | | | | | | | | | | |

<210> 1352

<211> 259

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1352

1399

Leu Leu Asp Ser Leu Lys Xaa Asp Tyr Ala Gly Lys Pro Gln Pro Pro
 1 5 10 15
 Ile Lys Ser Glu Arg Arg Asn Pro Pro Ser Tyr Ala Met Ala Gly Lys
 20 25 30
 Lys Val Leu Ile Val Tyr Ala His Gln Glu Pro Lys Ser Phe Asn Gly
 35 40 45
 Ser Leu Lys Asn Val Ala Val Asp Glu Leu Ser Arg Gln Gly Cys Thr
 50 55 60
 Val Thr Val Ser Asp Leu Tyr Ala Met Asn Phe Glu Pro Arg Ala Thr
 65 70 75 80
 Asp Lys Asp Ile Thr Gly Thr Leu Ser Asn Pro Glu Val Phe Asn Tyr
 85 90 95
 Gly Val Glu Thr His Glu Ala Tyr Lys Gln Arg Ser Leu Ala Ser Asp
 100 105 110
 Ile Thr Asp Glu Gln Lys Lys Val Arg Glu Ala Asp Leu Val Ile Phe
 115 120 125
 Gln Phe Pro Leu Tyr Trp Phe Ser Val Pro Ala Ile Leu Lys Gly Trp
 130 135 140
 Met Asp Arg Val Leu Cys Gln Gly Phe Ala Phe Asp Ile Pro Gly Phe
 145 150 155 160
 Tyr Asp Ser Gly Leu Leu Gln Gly Lys Leu Ala Leu Leu Ser Val Thr
 165 170 175
 Thr Gly Gly Thr Ala Glu Met Tyr Thr Lys Thr Gly Val Asn Gly Asp
 180 185 190
 Ser Arg Tyr Phe Leu Trp Pro Leu Gln His Gly Thr Leu His Phe Cys
 195 200 205
 Gly Phe Lys Val Leu Ala Pro Gln Ile Ser Phe Ala Pro Glu Ile Ala
 210 215 220
 Ser Glu Glu Glu Arg Lys Gly Met Val Ala Ala Trp Ser Gln Arg Leu
 225 230 235 240
 Gln Thr Ile Trp Lys Glu Glu Pro Ile Pro Cys Thr Ala His Trp His
 245 250 255
 Phe Gly Gln

1400

<210> 1353

<211> 72

<212> PRT

<213> Homo sapiens

<400> 1353

```

Asp Leu Ala Ser Glu Glu His Phe Phe Ser Val Lys Phe Leu Tyr Leu
 1             5             10             15

Lys Ile Gln Lys Tyr Phe Arg Ile Leu Leu Ile Leu Ser Pro Val Phe
          20             25             30

Thr Ser Phe Trp Lys Thr Cys Ile Thr Met Ser Leu Glu Lys Gly Gln
          35             40             45

Arg Lys Ala Phe His Val Lys Ile Arg Ser Leu Ala Ile Ser Asn Pro
          50             55             60

Val Leu Phe Ser Leu His Phe Phe
 65             70

```

<210> 1354

<211> 301

<212> PRT

<213> Homo sapiens

<400> 1354

```

Lys Arg Arg Arg Arg Leu Glu Gln Arg Gln Gln Pro Asp Glu Gln Arg
 1             5             10             15

Arg Arg Ser Gly Ala Met Val Lys Met Ala Ala Ala Gly Gly Gly Gly
          20             25             30

Gly Gly Gly Arg Tyr Tyr Gly Gly Gly Ser Glu Gly Gly Arg Ala Pro
          35             40             45

Lys Arg Leu Lys Thr Asp Asn Ala Gly Asp Gln His Gly Gly Gly Gly
          50             55             60

Gly Gly Gly Gly Gly Ala Gly Ala Ala Gly Gly Gly Gly Gly Glu
          65             70             75             80

Asn Tyr Asp Asp Pro His Lys Thr Pro Ala Ser Pro Val Val His Ile
          85             90             95

Arg Gly Leu Ile Asp Gly Val Val Glu Ala Asp Leu Val Glu Ala Leu
          100             105             110

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Phe | Gly | Pro | Ile | Ser | Tyr | Val | Val | Val | Met | Pro | Lys | Lys | Arg |
| 115 | | | | | | 120 | | | | | | 125 | | | |
| Gln | Ala | Leu | Val | Glu | Phe | Glu | Asp | Val | Leu | Gly | Ala | Cys | Asn | Ala | Val |
| 130 | | | | | | 135 | | | | | | 140 | | | |
| Asn | Tyr | Ala | Ala | Asp | Asn | Gln | Ile | Tyr | Ile | Ala | Gly | His | Pro | Ala | Phe |
| 145 | | | | | | 150 | | | | | | 155 | | | |
| Val | Asn | Tyr | Ser | Thr | Ser | Gln | Lys | Ile | Ser | Arg | Pro | Gly | Asp | Ser | Asp |
| | | | 165 | | | | | | 170 | | | | | | |
| Asp | Ser | Arg | Ser | Val | Asn | Ser | Val | Leu | Leu | Phe | Thr | Ile | Leu | Asn | Pro |
| | | | 180 | | | | | | 185 | | | | | | |
| Ile | Tyr | Ser | Ile | Thr | Thr | Asp | Val | Leu | Tyr | Thr | Ile | Cys | Asn | Pro | Cys |
| 195 | | | | | | 200 | | | | | | 205 | | | |
| Gly | Pro | Val | Gln | Arg | Ile | Val | Ile | Phe | Arg | Lys | Asn | Gly | Val | Gln | Ala |
| 210 | | | | | | 215 | | | | | | 220 | | | |
| Met | Val | Glu | Phe | Asp | Ser | Val | Gln | Ser | Ala | Gln | Arg | Ala | Lys | Ala | Ser |
| 225 | | | | | | 230 | | | | | | 235 | | | |
| Leu | Asn | Gly | Ala | Asp | Ile | Tyr | Ser | Gly | Cys | Cys | Thr | Leu | Lys | Ile | Glu |
| | | | 245 | | | | | | 250 | | | | | | |
| Tyr | Ala | Lys | Pro | Thr | Arg | Leu | Asn | Val | Phe | Lys | Asn | Asp | Gln | Asp | Thr |
| | | | 260 | | | | | | 265 | | | | | | |
| Trp | Asp | Tyr | Thr | Asn | Pro | Asn | Leu | Ser | Gly | Gln | Gly | Asn | Leu | Asp | Asp |
| 275 | | | | | | 280 | | | | | | 285 | | | |
| His | Phe | Val | Leu | Asn | Ile | Pro | Ala | Leu | Leu | Ser | Leu | Asp | | | |
| 290 | | | | | | 295 | | | | | | 300 | | | |

```

<400> 1355
Asn Thr Val Met Gly Arg Lys Lys Lys Lys Gln Leu Lys Pro Trp Cys
 1               5               10               15

Trp Tyr Cys Asn Arg Asp Phe Asp Asp Glu Lys Ile Leu Ile Gln His
                20                25                30

```

1402

Gln Lys Ala Lys His Phe Lys Cys His Ile Cys His Lys Lys Leu Tyr
 35 40 45
 Thr Gly Pro Gly Leu Ala Ile His Cys Met Gln Val His Lys Glu Thr
 50 55 60
 Ile Asp Ala Val Pro Asn Ala Ile Pro Gly Arg Thr Asp Ile Glu Leu
 65 70 75 80
 Glu Ile Tyr Gly Met Glu Gly Ile Pro Glu Lys Asp Met Asp Glu Arg
 85 90 95
 Arg Arg Leu Leu Glu Gln Lys Thr Gln Glu Ser Gln Lys Lys Lys Gln
 100 105 110
 Gln Asp Asp Ser Asp Glu Tyr Asp Asp Asp Asp Ser Ala Ala Ser Thr
 115 120 125
 Ser Phe Gln Pro Gln Pro Val Gln Pro Gln Gln Gly Tyr Ile Pro Pro
 130 135 140
 Met Ala Gln Pro Gly Leu Pro Pro Val Pro Gly Ala Pro Gly Met Pro
 145 150 155 160
 Pro Gly Ile Pro Pro Leu Met Pro Gly Val Pro Pro Leu Met Pro Gly
 165 170 175
 Met Pro Pro Val Met Pro Gly Met Pro Pro Gly Leu His His Gln Arg
 180 185 190
 Lys Tyr Thr Gln Ser Phe Cys Gly Glu Asn Ile Met Met Pro Met Gly
 195 200 205
 Gly Met Met Pro Pro Gly Pro Gly Ile Pro Pro Leu Met Pro Gly Met
 210 215 220
 Pro Pro Gly Met Pro Pro Pro Val Pro Arg Pro Gly Ile Pro Pro Met
 225 230 235 240
 Thr Gln Ala Gln Ala Val Ser Ala Pro Gly Ile Leu Asn Arg Pro Pro
 245 250 255
 Ala Pro Thr Ala Thr Val Pro Ala Pro Gln Pro Pro Val Thr Lys Pro
 260 265 270
 Leu Phe Pro Ser Ala Gly Gln Ala Gln Ala Ala Val Gln Gly Pro Val
 275 280 285
 Gly Thr Asp Phe Lys Pro Leu Asn Ser Thr Pro Ala Thr Thr Thr Glu
 290 295 300

1403

Pro Pro Lys Pro Thr Phe Pro Ala Tyr Thr Gln Ser Thr Ala Ser Thr
305 310 315 320

Thr Ser Thr Thr Asn Ser Thr Ala Ala Lys Pro Ala Ala Ser Ile Thr
325 330 335

Ser Lys Pro Ala Thr Leu Thr Thr Thr Ser Ala Thr Ser Lys Leu Ile
340 345 350

His Pro Asp Glu Asp Ile Ser Leu Glu Glu Arg Arg Ala Gln Leu Pro
355 360 365

Lys Tyr Gln Arg Asn Leu Pro Arg Pro Gly Gln Ala Pro Ile Gly Asn
370 375 380

Pro Pro Val Gly Pro Ile Gly Gly Met Met Pro Pro Gln Pro Gly Ile
385 390 395 400

Pro Gln Gln Gln Gly Met Arg Pro Pro Met Pro Pro His Gly Gln Tyr
405 410 415

Gly Gly His His Gln Gly Met Pro Gly Tyr Leu Pro Gly Ala Met Pro
420 425 430

Pro Tyr Gly Gln Gly Pro Pro Met Val Pro Pro Tyr Gln Gly Gly Pro
435 440 445

Pro Arg Pro Pro Met Gly Met Arg Pro Pro Val Met Ser Gln Gly Gly
450 455 460

Arg Tyr
465

<210> 1356

<211> 85

<212> PRT

<213> Homo sapiens

<400> 1356

Leu Ser Asp Asp Gln Ser Leu Leu Ile Ile Leu Leu Leu Lys Gly Leu
1 5 10 15

Leu Thr Asn Leu Ser Phe Thr Pro Cys Gly Pro Cys Tyr Trp Tyr Thr
20 25 30

Gln Tyr Val Leu Thr Glu Asp Met Asp Phe Ile Cys Ser Ser Ala Gly
35 40 45

Ile Gly Lys Leu Asp Leu Phe Ser Met Ile Gln Asn Ser Pro Ile Arg

1404

50 55 60
 Arg Leu Glu Lys Glu Glu Leu Tyr Ser Ser Leu Cys Tyr Phe Leu Leu
 65 70 75 80
 Pro Phe Leu Phe Leu
 85

<210> 1357
 <211> 580
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (3)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (526)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1357
 Asp Ser Xaa Thr Phe Asp Asp Leu Ala Val Asp Phe Thr Pro Glu Glu
 1 5 10 15
 Trp Thr Leu Leu Asp Pro Thr Gln Arg Asn Leu Tyr Arg Asp Val Met
 20 25 30
 Leu Glu Asn Tyr Lys Asn Leu Ala Thr Val Gly Tyr Gln Leu Phe Lys
 35 40 45
 Pro Ser Leu Ile Ser Trp Leu Glu Gln Glu Glu Ser Arg Thr Val Gln
 50 55 60
 Arg Gly Asp Phe Gln Ala Ser Glu Trp Lys Val Gln Leu Lys Thr Lys
 65 70 75 80
 Glu Leu Ala Leu Gln Gln Asp Val Leu Gly Glu Pro Thr Ser Ser Gly
 85 90 95
 Ile Gln Met Ile Gly Ser His Asn Gly Gly Glu Val Ser Asp Val Lys
 100 105 110
 Gln Cys Gly Asp Val Ser Ser Glu His Ser Cys Leu Lys Thr His Val
 115 120 125
 Arg Thr Gln Asn Ser Glu Asn Thr Phe Glu Cys Tyr Leu Tyr Gly Val

1405

| | | |
|---|-----|-------------|
| 130 | 135 | 140 |
| Asp Phe Leu Thr Leu His Lys Lys Thr Ser Thr Gly Glu Gln Arg Ser | | |
| 145 | 150 | 155 160 |
| Val Phe Ser Gln Cys Gly Lys Ala Phe Ser Leu Asn Pro Asp Val Val | | |
| | 165 | 170 175 |
| Cys Gln Arg Thr Cys Thr Gly Glu Lys Ala Phe Asp Cys Ser Asp Ser | | |
| | 180 | 185 190 |
| Gly Lys Ser Phe Ile Asn His Ser His Leu Gln Gly His Leu Arg Thr | | |
| | 195 | 200 205 |
| His Asn Gly Glu Ser Leu His Glu Trp Lys Glu Cys Gly Arg Gly Phe | | |
| | 210 | 215 220 |
| Ile His Ser Thr Asp Leu Ala Val Arg Ile Gln Thr His Arg Ser Glu | | |
| | 225 | 230 235 240 |
| Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Gly Phe Arg Tyr Ser Ala | | |
| | 245 | 250 255 |
| Tyr Leu Asn Ile His Met Gly Thr His Thr Gly Asp Asn Pro Tyr Glu | | |
| | 260 | 265 270 |
| Cys Lys Glu Cys Gly Lys Ala Phe Thr Arg Ser Cys Gln Leu Thr Gln | | |
| | 275 | 280 285 |
| His Arg Lys Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Asp Cys | | |
| | 290 | 295 300 |
| Gly Arg Ala Phe Thr Val Ser Ser Cys Leu Ser Gln His Met Lys Ile | | |
| | 305 | 310 315 320 |
| His Val Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Ile Ala Phe | | |
| | 325 | 330 335 |
| Thr Arg Ser Ser Gln Leu Thr Glu His Leu Lys Thr His Thr Ala Lys | | |
| | 340 | 345 350 |
| Asp Pro Phe Glu Cys Lys Ile Cys Gly Lys Ser Phe Arg Asn Ser Ser | | |
| | 355 | 360 365 |
| Cys Leu Ser Asp His Phe Arg Ile His Thr Gly Ile Lys Pro Tyr Lys | | |
| | 370 | 375 380 |
| Cys Lys Asp Cys Gly Lys Ala Phe Thr Gln Asn Ser Asp Leu Thr Lys | | |
| | 385 | 390 395 400 |
| His Ala Arg Thr His Ser Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys | | |

1406

| | | | | | |
|---|-----|--|-----|--|-----|
| | 405 | | 410 | | 415 |
| Gly Lys Ala Phe Ala Arg Ser Ser Arg Leu Ser Glu His Thr Arg Thr | | | | | |
| | 420 | | 425 | | 430 |
| His Thr Gly Glu Lys Pro Phe Glu Cys Val Lys Cys Gly Lys Ala Phe | | | | | |
| | 435 | | 440 | | 445 |
| Ala Ile Ser Ser Asn Leu Ser Gly His Leu Arg Ile His Thr Gly Glu | | | | | |
| | 450 | | 455 | | 460 |
| Lys Pro Phe Glu Cys Leu Glu Cys Gly Lys Ala Phe Thr His Ser Ser | | | | | |
| | 465 | | 470 | | 475 |
| Ser Leu Asn Asn His Met Arg Thr His Ser Ala Lys Lys Pro Phe Thr | | | | | |
| | 485 | | 490 | | 495 |
| Cys Met Glu Cys Gly Lys Ala Phe Lys Phe Pro Thr Cys Val Asn Leu | | | | | |
| | 500 | | 505 | | 510 |
| His Met Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Xaa Gln Cys | | | | | |
| | 515 | | 520 | | 525 |
| Gly Lys Ser Phe Ser Tyr Ser Asn Ser Phe Gln Leu His Glu Arg Thr | | | | | |
| | 530 | | 535 | | 540 |
| His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe | | | | | |
| | 545 | | 550 | | 555 |
| Ser Ser Ser Ser Ser Phe Arg Asn His Glu Arg Arg His Ala Asp Glu | | | | | |
| | 565 | | 570 | | 575 |
| Arg Leu Ser Ala | | | | | |
| | 580 | | | | |

<210> 1358

<211> 612

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (445)

<223> Xaa equals any of the naturally occurring L-amino acids

1407

<400> 1358

Glu Val Pro Glu Ala His Arg Ala Ser Pro Arg Glu Gly Thr Ser Gly
 1 5 10 15

Gly Glu Arg Leu Gln Asp Leu Val Lys Ser Lys Met Ser Glu Thr Ser
 20 25 30

Arg Thr Ala Phe Gly Gly Arg Arg Ala Val Pro Pro Asn Asn Ser Asn
 35 40 45

Ala Ala Glu Asp Asp Leu Pro Thr Val Glu Leu Gln Gly Val Val Pro
 50 55 60

Arg Gly Val Asn Leu Gln Asp Asp Ala Val Tyr Leu Asp Asn Glu Lys
 65 70 75 80

Glu Arg Glu Glu Tyr Val Leu Asn Asp Ile Gly Val Ile Phe Tyr Gly
 85 90 95

Glu Val Asn Asp Ile Lys Thr Arg Ser Trp Ser Tyr Gly Gln Phe Glu
 100 105 110

Asp Gly Ile Leu Asp Thr Cys Leu Tyr Val Met Asp Arg Ala Gln Met
 115 120 125

Asp Leu Ser Gly Arg Xaa Asn Pro Ile Lys Val Ser Arg Val Gly Ser
 130 135 140

Ala Met Val Asn Ala Lys Asp Asp Glu Gly Val Leu Val Gly Ser Trp
 145 150 155 160

Asp Asn Ile Tyr Ala Tyr Gly Val Pro Pro Ser Ala Trp Thr Gly Ser
 165 170 175

Val Asp Ile Leu Leu Glu Tyr Arg Ser Ser Glu Asn Pro Val Arg Tyr
 180 185 190

Gly Gln Cys Trp Val Phe Ala Gly Val Phe Asn Thr Phe Leu Arg Cys
 195 200 205

Leu Gly Ile Pro Ala Arg Ile Val Thr Asn Tyr Phe Ser Ala His Asp
 210 215 220

Asn Asp Ala Asn Leu Gln Met Asp Ile Phe Leu Glu Glu Asp Gly Asn
 225 230 235 240

Val Asn Ser Lys Leu Thr Lys Asp Ser Val Trp Asn Tyr His Cys Trp
 245 250 255

Asn Glu Ala Trp Met Thr Arg Pro Asp Leu Pro Val Gly Phe Gly Gly

1409

530 535 540
 Trp Val His Leu Asp Gly Pro Gly Val Thr Arg Pro Met Lys Lys Met
 545 550 555 560
 Phe Arg Glu Ile Arg Pro Asn Ser Thr Val Gln Trp Glu Glu Val Cys
 565 570 575
 Arg Pro Trp Val Ser Gly His Arg Lys Leu Ile Ala Ser Met Ser Ser
 580 585 590
 Asp Ser Leu Arg His Val Tyr Gly Glu Leu Asp Val Gln Ile Gln Arg
 595 600 605
 Arg Pro Ser Met
 610

<210> 1359
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 1359
 Leu Ser Cys Ile Val Leu Leu Arg Gln Ser Ser Val Lys Leu Tyr Gln
 1 5 10 15
 Leu Arg Leu Val Ser Ser Asp Phe His Trp Gly Ile Arg Val Leu Ala
 20 25 30
 Gly Leu Asn Leu Leu Leu Val Gly Ser Val Phe Leu Met Asn Lys Ser
 35 40 45
 His Ser Thr Glu Leu Gln Val Ile
 50 55

<210> 1360
 <211> 415
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (368)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE

1410

<222> (374)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (379)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (384)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (385)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (386)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (389)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (397)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (404)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (405)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (409)

1411

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1360

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Gly | Gly | Glu | Lys | Met | Ala | Asp | Asp | Pro | Ser | Ala | Ala | Asp | Arg |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |
| Asn | Val | Glu | Ile | Trp | Lys | Ile | Lys | Lys | Leu | Ile | Lys | Ser | Leu | Glu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Arg | Gly | Asn | Gly | Thr | Ser | Met | Ile | Ser | Leu | Ile | Ile | Pro | Pro | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Gln | Ile | Ser | Arg | Val | Ala | Lys | Met | Leu | Ala | Asp | Glu | Phe | Gly | Thr |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| Ala | Ser | Asn | Ile | Lys | Ser | Arg | Val | Asn | Arg | Leu | Ser | Val | Leu | Gly | Ala |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |
| Ile | Thr | Ser | Val | Gln | Gln | Arg | Leu | Lys | Leu | Tyr | Asn | Lys | Val | Pro | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Gly | Leu | Val | Val | Tyr | Cys | Gly | Thr | Ile | Val | Thr | Glu | Glu | Gly | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Lys | Lys | Val | Asn | Ile | Asp | Phe | Glu | Pro | Phe | Lys | Pro | Ile | Asn | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Leu | Tyr | Leu | Cys | Asp | Asn | Lys | Phe | His | Thr | Glu | Ala | Leu | Thr | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Ser | Asp | Asp | Ser | Lys | Phe | Gly | Phe | Ile | Val | Ile | Asp | Gly | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ala | Leu | Phe | Gly | Thr | Leu | Gln | Gly | Asn | Thr | Arg | Glu | Val | Leu | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Lys | Phe | Thr | Val | Asp | Leu | Pro | Lys | Lys | His | Gly | Arg | Gly | Gly | Gln | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Arg | Phe | Ala | Arg | Leu | Arg | Met | Glu | Lys | Arg | His | Asn | Tyr | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Lys | Val | Ala | Glu | Thr | Ala | Val | Gln | Leu | Phe | Ile | Ser | Gly | Asp | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Asn | Val | Ala | Gly | Leu | Val | Leu | Ala | Gly | Ser | Ala | Asp | Phe | Lys | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Leu | Ser | Gln | Ser | Asp | Met | Phe | Asp | Gln | Arg | Leu | Gln | Ser | Lys | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |

1412

Leu Lys Leu Val Asp Ile Ser Tyr Gly Gly Glu Asn Gly Phe Asn Gln
 260 265 270
 Ala Ile Glu Leu Ser Thr Glu Val Leu Ser Asn Val Lys Phe Ile Gln
 275 280 285
 Glu Lys Lys Leu Ile Gly Arg Tyr Phe Asp Glu Ile Ser Gln Asp Thr
 290 295 300
 Gly Lys Tyr Cys Phe Gly Val Glu Asp Thr Leu Lys Ala Leu Glu Met
 305 310 315 320
 Gly Ala Val Glu Ile Leu Ile Val Tyr Glu Asn Leu Asp Ile Met Arg
 325 330 335
 Tyr Val Leu His Cys Gln Gly Thr Glu Glu Glu Lys Ile Leu Tyr Leu
 340 345 350
 Thr Pro Glu Gln Glu Lys Asp Lys Ser His Phe Thr Asp Lys Glu Xaa
 355 360 365
 Arg Thr Gly Thr Met Xaa Leu Ser Arg Ala Xaa Pro Xaa Leu Glu Xaa
 370 375 380
 Xaa Xaa Asn Asn Xaa Lys Lys Leu Gly Leu Pro Trp Xaa Ile Gly Pro
 385 390 395 400
 Ile Asn Ser Xaa Xaa Arg Gly Gln Xaa Trp Lys Arg Ile Gly Gly
 405 410 415

<210> 1361

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1361

His Ala Ser Ala Asp Ala Trp Ala Asp Ala Trp Val Ala Gly Ser Asp
 1 5 10 15
 Phe Ile Lys Thr Ser Thr Gly Lys Glu Thr Val Asn Ala Thr Phe Pro
 20 25 30
 Val Ala Ile Val Met Leu Arg Ala Ile Arg Asp Phe Phe Trp Lys Thr
 35 40 45
 Gly Asn Lys Ile Gly Phe Lys Pro Ala Gly Gly Ile Arg Ser Ala Lys
 50 55 60
 Asp Ser Leu Ala Trp Leu Ser Leu Val Lys Glu Glu Leu Gly Asp Glu

1413

Asn Phe Asn Met Ser Val Ser Ser Met Glu Tyr Ile Pro Glu Gly Glu

1414

| | | |
|---|-----|-------------|
| 115 | 120 | 125 |
| Ile Leu Val Ile Thr Tyr Gly Arg Ser Ile Ala Phe His Ser Ala Val | | |
| 130 | 135 | 140 |
| Ser Leu Asp Pro Ile Lys Ser Phe Glu Ala Pro Ala Thr Ile Asn Ser | | |
| 145 | 150 | 155 160 |
| Ala Ser Leu His Pro Glu Lys Glu Phe Leu Val Ala Gly Gly Glu Asp | | |
| | 165 | 170 175 |
| Phe Lys Leu Tyr Lys Tyr Asp Tyr Asn Ser Gly Glu Glu Leu Glu Ser | | |
| | 180 | 185 190 |
| Tyr Lys Gly His Phe Gly Pro Ile His Cys Val Arg Phe Ser Pro Asp | | |
| | 195 | 200 205 |
| Gly Glu Leu Tyr Ala Ser Gly Ser Glu Asp Gly Thr Leu Arg Leu Trp | | |
| | 210 | 215 220 |
| Gln Thr Val Val Gly Lys Thr Tyr Gly Leu Trp Lys Cys Val Leu Pro | | |
| | 225 | 230 235 240 |
| Glu Glu Asp Ser Gly Glu Leu Ala Lys Pro Lys Ile Gly Phe Pro Glu | | |
| | 245 | 250 255 |
| Thr Thr Glu Glu Glu Leu Glu Glu Ile Ala Ser Glu Asn Ser Asp Cys | | |
| | 260 | 265 270 |
| Ile Phe Pro Ser Ala Pro Asp Val Lys Ala | | |
| | 275 | 280 |

<210> 1363

<211> 334

<212> PRT

<213> Homo sapiens

<400> 1363

| |
|---|
| Thr Pro Arg Thr Pro Glu Pro His Lys Pro Gly Leu Ala Met Lys Pro |
| 1 5 10 15 |
| Gly Phe Ser Pro Arg Gly Gly Gly Phe Gly Gly Arg Gly Gly Phe Gly |
| 20 25 30 |
| Asp Arg Gly Gly Arg Gly Gly Arg Gly Gly Phe Gly Gly Gly Arg Gly |
| 35 40 45 |
| Arg Gly Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Gly Gly Gly |
| 50 55 60 |

1415

Gly Gly Gly Gly Gly Gly Gly Arg Gly Gly Gly Gly Phe His Ser Gly
 65 70 75 80
 Gly Asn Arg Gly Arg Gly Arg Gly Gly Lys Arg Gly Asn Gln Ser Gly
 85 90 95
 Lys Asn Val Met Val Glu Pro His Arg His Glu Gly Val Phe Ile Cys
 100 105 110
 Arg Gly Lys Glu Asp Ala Leu Val Thr Lys Asn Leu Val Pro Gly Glu
 115 120 125
 Ser Val Tyr Gly Glu Lys Arg Val Ser Ile Ser Glu Gly Asp Asp Lys
 130 135 140
 Ile Glu Tyr Arg Ala Trp Asn Pro Phe Arg Ser Lys Leu Ala Ala Ala
 145 150 155 160
 Ile Leu Gly Gly Val Asp Gln Ile His Ile Lys Pro Gly Ala Lys Val
 165 170 175
 Leu Tyr Leu Gly Ala Ala Ser Gly Thr Thr Val Ser His Val Ser Asp
 180 185 190
 Ile Val Gly Pro Asp Gly Leu Val Tyr Ala Val Glu Phe Ser His Arg
 195 200 205
 Ser Gly Arg Asp Leu Ile Asn Leu Ala Lys Lys Arg Thr Asn Ile Ile
 210 215 220
 Pro Val Ile Glu Asp Ala Arg His Pro His Lys Tyr Arg Met Leu Ile
 225 230 235 240
 Ala Met Val Asp Val Ile Phe Ala Asp Val Ala Gln Pro Asp Gln Thr
 245 250 255
 Arg Ile Val Ala Leu Asn Ala His Thr Phe Leu Arg Asn Gly Gly His
 260 265 270
 Phe Val Ile Ser Ile Lys Ala Asn Cys Ile Asp Ser Thr Ala Ser Ala
 275 280 285
 Glu Ala Val Phe Ala Ser Glu Val Lys Lys Met Gln Gln Glu Asn Met
 290 295 300
 Lys Pro Gln Glu Gln Leu Thr Leu Glu Pro Tyr Glu Arg Asp His Ala
 305 310 315 320
 Val Val Val Gly Val Tyr Arg Pro Pro Pro Lys Val Lys Asn
 325 330

1416

<210> 1364

<211> 602

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (356)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1364

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ala | Glu | Lys | Ser | Gly | Arg | Ala | Ala | Glu | Arg | Pro | Gly | Arg | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Arg | Gly | Ala | His | Ser | Arg | Pro | Thr | Ala | Pro | Arg | Glu | Arg | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Ser | Pro | Ala | Pro | Ser | Pro | Pro | Gly | Met | Gly | Arg | Ala | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ala | Pro | Ala | Trp | Pro | Gly | Arg | Thr | Arg | Pro | Glu | Ala | Glu | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ala | Arg | Ala | Gln | Leu | Pro | Gly | His | Gln | Ile | Gly | Ala | Arg | Arg | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Pro | Arg | Ala | Gly | Leu | Glu | Met | Ser | Trp | Pro | Arg | Arg | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Tyr | Leu | Phe | Pro | Ala | Leu | Leu | Leu | His | Gly | Leu | Gly | Glu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Leu | Leu | His | Pro | Asp | Ser | Arg | Ser | His | Pro | Arg | Ser | Leu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Ala | Trp | Arg | Ala | Phe | Lys | Glu | Ser | Gln | Cys | His | His | Met | Leu |
| | 130 | | | | 135 | | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | His | Leu | His | Asn | Gly | Ala | Arg | Ile | Thr | Val | Gln | Met | Pro | Pro | Thr |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Gly | His | Trp | Val | Ser | Thr | Gly | Cys | Glu | Val | Arg | Ser | Gly | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Ile | Thr | Arg | Ser | Tyr | Arg | Phe | Tyr | His | Asn | Asn | Thr | Phe | Lys |
| | | 180 | | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Tyr | Gln | Phe | Tyr | Tyr | Gly | Ser | Asn | Arg | Cys | Thr | Asn | Pro | Thr | Tyr |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1417

| | | |
|---|---------|---------|
| 195 | 200 | 205 |
| Thr Leu Ile Ile Arg Gly Lys Ile Arg Leu Arg Gln Ala Ser Trp Ile | | |
| 210 | 215 | 220 |
| Ile Arg Gly Gly Thr Glu Ala Asp Tyr Gln Leu His Asn Val Gln Val | | |
| 225 | 230 | 235 240 |
| Ile Cys His Thr Glu Ala Val Ala Glu Lys Leu Gly Gln Gln Val Asn | | |
| | 245 250 | 255 |
| Arg Thr Cys Pro Gly Phe Leu Ala Asp Gly Gly Pro Trp Val Gln Asp | | |
| | 260 265 | 270 |
| Val Ala Tyr Asp Leu Trp Arg Glu Glu Asn Gly Cys Glu Cys Thr Lys | | |
| | 275 280 | 285 |
| Ala Val Asn Phe Ala Met His Glu Leu Gln Leu Ile Arg Val Glu Lys | | |
| | 290 295 | 300 |
| Gln Tyr Leu His His Asn Leu Asp His Leu Val Glu Glu Leu Phe Leu | | |
| 305 | 310 315 | 320 |
| Gly Asp Ile His Thr Asp Ala Thr Gln Arg Met Phe Tyr Arg Pro Ser | | |
| | 325 330 | 335 |
| Ser Tyr Gln Pro Pro Leu Gln Asn Ala Lys Asn His Asp His Ala Cys | | |
| | 340 345 | 350 |
| Ile Ala Cys Xaa Ile Ile Tyr Arg Ser Asp Glu His His Pro Pro Ile | | |
| | 355 360 | 365 |
| Leu Pro Pro Lys Ala Asp Leu Thr Ile Gly Leu His Gly Glu Trp Val | | |
| | 370 375 | 380 |
| Ser Gln Arg Cys Glu Val Arg Pro Glu Val Leu Phe Leu Thr Arg His | | |
| 385 | 390 395 | 400 |
| Phe Ile Phe His Asp Asn Asn Asn Thr Trp Glu Gly His Tyr Tyr His | | |
| | 405 410 | 415 |
| Tyr Ser Asp Pro Val Cys Lys His Pro Thr Phe Ser Ile Tyr Ala Arg | | |
| | 420 425 | 430 |
| Gly Arg Tyr Ser Arg Gly Val Leu Ser Ser Arg Val Met Gly Gly Thr | | |
| | 435 440 | 445 |
| Glu Phe Val Phe Lys Val Asn His Met Lys Val Thr Pro Met Asp Ala | | |
| | 450 455 | 460 |
| Ala Thr Ala Ser Leu Leu Asn Val Phe Asn Gly Asn Glu Cys Gly Ala | | |

1418

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 465 | | | | | | 470 | | | | | | 475 | | | | 480 |
| Glu | Gly | Ser | Trp | Gln | Val | Gly | Ile | Gln | Gln | Asp | Val | Thr | His | Thr | Asn | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Gly | Cys | Val | Ala | Leu | Gly | Ile | Lys | Leu | Pro | His | Thr | Glu | Tyr | Glu | Ile | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Phe | Lys | Met | Glu | Gln | Asp | Ala | Arg | Gly | Arg | Tyr | Leu | Leu | Phe | Asn | Gly | |
| | | 515 | | | | | 520 | | | | | 525 | | | | |
| Gln | Arg | Pro | Ser | Asp | Gly | Ser | Ser | Pro | Asp | Arg | Pro | Glu | Lys | Arg | Ala | |
| | 530 | | | | | 535 | | | | | 540 | | | | | |
| Thr | Ser | Tyr | Gln | Met | Pro | Leu | Val | Gln | Cys | Ala | Ser | Ser | Ser | Pro | Arg | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | |
| Ala | Glu | Asp | Leu | Ala | Glu | Asp | Ser | Gly | Ser | Ser | Leu | Tyr | Gly | Arg | Ala | |
| | | | | 565 | | | | | 570 | | | | | 575 | | |
| Pro | Gly | Arg | His | Thr | Trp | Ser | Leu | Leu | Leu | Ala | Ala | Leu | Ala | Cys | Leu | |
| | | | 580 | | | | | 585 | | | | | 590 | | | |
| Val | Pro | Leu | Leu | His | Trp | Asn | Ile | Arg | Arg | | | | | | | |
| | | 595 | | | | | 600 | | | | | | | | | |

<210> 1365

<211> 158

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

1419

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1365

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Ser | Gly | Tyr | Pro | Phe | Trp | Thr | Pro | Ser | Met | Leu | Trp | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | Phe | Thr | Leu | Leu | Asn | Lys | Ala | Xaa | Ser | Phe | Phe | Ser | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Val | Ser | Phe | Thr | His | Xaa | Gly | Gln | Leu | Pro | His | His | Phe | Phe |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Ala | Trp | Gln | Glu | Pro | Gln | Val | Leu | His | Leu | Gly | Glu | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Leu | Gln | Lys | Arg | Ile | Lys | Ala | Ile | Lys | Leu | Gln | Xaa | Ile | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Met | Glu | Pro | Gln | Met | Ser | Ser | Ala | His | Gly | Phe | Tyr | Arg | Gly | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Gln | Pro | Ala | Gly | Pro | Ser | Ile | Thr | Leu | Glu | Asn | Ser | Pro | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Thr | Lys | Leu | Gln | Gly | Pro | Phe | Phe | Thr | Pro | Asn | Gln | Gln | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Arg | Thr | Asp | Cys | His | Xaa | Val | Pro | Asn | Ser | Xaa | Xaa | Gly | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Leu | Glu | Ala | Gly | Phe | Arg | Gly | Gly | Ala | Gln | Leu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | |

<210> 1366

1420

<211> 466
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (4)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (12)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (205)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (220)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (347)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1366
 Ser Thr Arg Xaa Arg Glu Gly Asn Ser His Ser Xaa Gly His Lys Thr
 1 5 10 15
 Ile Gln Gly Ser Leu Gly Arg Leu Ser Ser Ala Val Pro Gly Ser Gly
 20 25 30
 Ala Glu Leu Ser Pro Val Pro Asn Thr Asp Gly Thr Met Asn Ser Gly
 35 40 45
 His Ser Phe Ser Gln Thr Pro Ser Ala Ser Phe His Gly Ala Gly Gly
 50 55 60
 Gly Trp Gly Arg Pro Arg Ser Phe Pro Arg Ala Pro Thr Val His Gly
 65 70 75 80
 Gly Ala Gly Gly Ala Arg Ile Ser Leu Ser Phe Thr Thr Arg Ser Cys
 85 90 95
 Pro Pro Pro Gly Gly Ser Trp Gly Ser Gly Arg Ser Ser Pro Leu Leu
 100 105 110

1421

Gly Gly Asn Gly Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala
 115 120 125
 Ser Tyr Leu Glu Lys Val Arg Ala Leu Glu Glu Ala Asn Met Lys Leu
 130 135 140
 Glu Ser Arg Ile Leu Lys Trp His Gln Gln Arg Asp Pro Gly Ser Lys
 145 150 155 160
 Lys Asp Tyr Ser Gln Tyr Glu Glu Asn Ile Thr His Leu Gln Glu Gln
 165 170 175
 Ile Val Asp Gly Lys Met Thr Asn Ala Gln Ile Ile Leu Leu Ile Asp
 180 185 190
 Asn Ala Arg Met Ala Val Asp Asp Phe Asn Leu Lys Xaa Glu Asn Glu
 195 200 205
 His Ser Phe Lys Lys Asp Leu Glu Ile Glu Val Xaa Gly Leu Arg Arg
 210 215 220
 Thr Leu Asp Asn Leu Thr Ile Val Thr Thr Asp Leu Glu Gln Glu Val
 225 230 235 240
 Glu Gly Met Arg Lys Glu Leu Ile Leu Met Lys Lys His His Glu Gln
 245 250 255
 Glu Met Glu Lys His His Val Pro Ser Asp Phe Asn Val Asn Val Lys
 260 265 270
 Val Asp Thr Gly Pro Arg Glu Asp Leu Ile Lys Val Leu Glu Asp Met
 275 280 285
 Arg Gln Glu Tyr Glu Leu Ile Ile Lys Lys Lys His Arg Asp Leu Asp
 290 295 300
 Thr Trp Tyr Lys Glu Gln Ser Ala Ala Met Ser Gln Glu Ala Ala Ser
 305 310 315 320
 Pro Ala Thr Val Gln Ser Arg Gln Gly Asp Ile His Glu Leu Lys Arg
 325 330 335
 Thr Phe Gln Ala Leu Glu Ile Asp Leu Gln Xaa Gln Tyr Ser Thr Lys
 340 345 350
 Ser Ala Leu Glu Asn Met Leu Ser Glu Thr Gln Ser Arg Tyr Ser Cys
 355 360 365
 Lys Leu Gln Asp Met Gln Glu Ile Ile Ser His Tyr Glu Glu Glu Leu
 370 375 380

1422

Thr Gln Leu Arg His Glu Leu Glu Arg Gln Asn Asn Glu Tyr Gln Val
 385 390 395 400

Leu Leu Gly Ile Lys Thr His Leu Glu Lys Glu Ile Thr Thr Tyr Arg
 405 410 415

Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys Ser
 420 425 430

Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln Glu
 435 440 445

Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln Lys
 450 455 460

His Ala
 465

<210> 1367
 <211> 153
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (136)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (138)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (141)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (142)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (143)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

1423

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1367

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Phe | Ala | Ser | Pro | Gly | Pro | Gly | Ala | Gly | Arg | Ala | Arg | Asp | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Lys | Trp | Arg | Arg | Leu | Arg | Ala | Arg | Pro | Leu | Leu | Gly | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Trp | Ser | Trp | Ala | Gly | Ile | Pro | Ser | Ser | Ala | Ala | Ala | Gln | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Pro | Pro | Ala | Gly | Ala | Leu | Glu | Ala | Leu | Ser | Pro | Gly | Gly | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ala | His | Ala | Glu | Arg | Arg | Gly | Glu | Met | Arg | Ala | Thr | Pro | Leu | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Ala | Gly | Ser | Leu | Ser | Arg | Lys | Lys | Arg | Leu | Glu | Leu | Asp | Asp |
| | | | | 85 | | | | 90 | | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Asp | Thr | Glu | Arg | Pro | Val | Gln | Lys | Arg | Ala | Arg | Ser | Gly | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Arg | Leu | Pro | Pro | Cys | Leu | Leu | Pro | Leu | Ser | Pro | Pro | Thr | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Arg | Ala | Thr | Ala | Val | Xaa | Thr | Xaa | Ser | Arg | Xaa | Xaa | Xaa | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Leu | Glu | Ala | Arg | Arg | Xaa | Ala |
| 145 | | | | | | 150 | | |

<210> 1368

<211> 399

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

1424

<400> 1368

```

Ser Asp Asn Xaa Thr Asn Gly Cys Gly Leu Glu Ser Xaa Gly Asn Thr
  1              5              10              15

Val Thr Pro Val Asn Val Asn Glu Val Lys Pro Ile Asn Lys Gly Glu
      20              25              30

Glu Gln Ile Gly Phe Glu Leu Val Glu Lys Leu Phe Gln Gly Gln Leu
      35              40              45

Val Leu Arg Thr Arg Cys Leu Glu Cys Glu Ser Leu Thr Glu Arg Arg
      50              55              60

Glu Asp Phe Gln Asp Ile Ser Val Pro Val Gln Glu Asp Glu Leu Ser
      65              70              75              80

Lys Val Glu Glu Ser Ser Glu Ile Ser Pro Glu Pro Lys Thr Glu Met
      85              90              95

Lys Thr Leu Arg Trp Ala Ile Ser Gln Phe Ala Ser Val Glu Arg Ile
      100             105             110

Val Gly Glu Asp Lys Tyr Phe Cys Glu Asn Cys His His Tyr Thr Glu
      115             120             125

Ala Glu Arg Ser Leu Leu Phe Asp Lys Met Pro Glu Val Ile Thr Ile
      130             135             140

His Leu Lys Cys Phe Ala Ala Ser Gly Leu Glu Phe Asp Cys Tyr Gly
      145             150             155             160

Gly Gly Leu Ser Lys Ile Asn Thr Pro Leu Leu Thr Pro Leu Lys Leu
      165             170             175

Ser Leu Glu Glu Trp Ser Thr Lys Pro Thr Asn Asp Ser Tyr Gly Leu
      180             185             190

Phe Ala Val Val Met His Ser Gly Ile Thr Ile Ser Ser Gly His Tyr
      195             200             205

Thr Ala Ser Val Lys Val Thr Asp Leu Asn Ser Leu Glu Leu Asp Lys
      210             215             220

Gly Asn Phe Val Val Asp Gln Met Cys Glu Ile Gly Lys Pro Glu Pro
      225             230             235             240

Leu Asn Glu Glu Glu Ala Arg Gly Val Val Glu Asn Tyr Asn Asp Glu
      245             250             255

Glu Val Ser Ile Arg Val Gly Gly Asn Thr Gln Pro Ser Lys Val Leu

```

1425

| 260 | | | | | 265 | | | | | 270 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Lys | Asn | Val | Glu | Ala | Ile | Gly | Leu | Leu | Gly | Gly | Gln | Lys | Ser |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Lys | Ala | Asp | Tyr | Glu | Leu | Tyr | Asn | Lys | Ala | Ser | Asn | Pro | Asp | Lys | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Ser | Thr | Ala | Phe | Ala | Glu | Asn | Arg | Asn | Ser | Glu | Thr | Ser | Asp | Thr |
| | 305 | | | | | 310 | | | | | 315 | | | | 320 |
| Thr | Gly | Thr | His | Glu | Ser | Asp | Arg | Asn | Lys | Glu | Ser | Ser | Asp | Gln | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Ile | Asn | Ile | Ser | Gly | Phe | Glu | Asn | Lys | Ile | Ser | Tyr | Val | Val | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Leu | Lys | Glu | Tyr | Glu | Gly | Lys | Trp | Leu | Leu | Phe | Asp | Asp | Ser | Glu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Val | Lys | Val | Thr | Glu | Glu | Lys | Asp | Phe | Leu | Asn | Ser | Leu | Ser | Pro | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Thr | Ser | Pro | Thr | Ser | Thr | Pro | Tyr | Leu | Leu | Phe | Tyr | Lys | Lys | Leu | |
| | 385 | | | | | 390 | | | | | 395 | | | | |

<210> 1369

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1369

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Xaa | Ser | Phe | Phe | Ala | Glu | Lys | Glu | Gln | Gln | Glu | Ala | Ile | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ile | Asp | Glu | Val | Gln | Asn | Glu | Ile | Asp | Arg | Leu | Asn | Glu | Gln | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Glu | Ile | Leu | Lys | Val | Glu | Gln | Lys | Tyr | Asn | Lys | Leu | Arg | Gln |
| | | 35 | | | | | 40 | | | | 45 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Phe | Gln | Lys | Arg | Ser | Glu | Leu | Ile | Ala | Lys | Ile | Pro | Asn | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |

1426

Trp Val Thr Thr Phe Val Asn His Pro Gln Val Ser Ala Leu Leu Gly
 65 70 75 80
 Glu Glu Asp Glu Glu Ala Leu His Tyr Leu Thr Arg Val Glu Val Thr
 85 90 95
 Glu Phe Glu Asp Ile Lys Ser Gly Tyr Arg Ile Asp Phe Tyr Phe Asp
 100 105 110
 Glu Asn Pro Tyr Phe Glu Asn Lys Val Leu Ser Lys Glu Phe His Leu
 115 120 125
 Asn Glu Ser Gly Asp Pro Ser Ser Lys Ser Thr Glu Ile Lys Trp Lys
 130 135 140
 Ser Gly Lys Asp Leu Thr Lys Arg Ser Ser Gln Thr Gln Asn Lys Ala
 145 150 155 160
 Ser Arg Lys Arg Gln His Glu Glu Pro Glu Ser Phe Phe Thr Trp Phe
 165 170 175
 Thr Asp His Ser Asp Ala Gly Ala Asp Glu Leu Gly Glu Val Ile Lys
 180 185 190
 Asp Asp Ile Trp Pro Asn Pro Leu Gln Tyr Tyr Leu Val Pro Asp Met
 195 200 205
 Asp Asp Glu Glu Gly Glu Gly Glu Glu Asp Asp Asp Asp Asp Glu Glu
 210 215 220
 Glu Glu Gly Leu Glu Asp Ile Asp Glu Glu Gly Asp Glu Asp Glu Gly
 225 230 235 240
 Glu Glu Asp Glu Asp Asp Asp Glu Gly Glu Glu Gly Glu Glu Asp Glu
 245 250 255
 Gly Glu Asp Asp
 260

<210> 1370

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1370

Lys Gly Glu Ala Ala Ala Phe Ser Ala Thr Phe Pro Ile Ala Arg Gln
 1 5 10 15

Glu Phe Leu Ser Val Thr Thr Ile Ala Val Met Ser Gly Arg Gly Lys

1427

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| | 20 | | 25 | | 30 | |
| Gln Gly Gly Lys Ala Arg Ala Lys Ala Lys Ser Arg Ser Ser Arg Ala | 35 | | 40 | | 45 | |
| Gly Leu Gln Phe Pro Val Gly Glu Cys Ile Ala Leu Arg Lys Gly Asn | 50 | | 55 | | 60 | |
| Tyr Ala Glu Arg Val Gly Ala Gly Ala Pro Val Tyr Met Ala Ala Val | 65 | | 70 | | 75 | 80 |
| Leu Glu Tyr Leu Thr Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala | | 85 | | 90 | | 95 |
| Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala | | 100 | | 105 | | 110 |
| Ile Arg Asn Asp Glu Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile | | 115 | | 120 | | 125 |
| Ala Gln Gly Gly Val Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys | | 130 | | 135 | | 140 |
| Lys Thr Glu Ser His His Lys Ala Lys Gly Lys | 145 | | 150 | | 155 | |

<210> 1371

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1371

| | | | | | | | |
|---|---|----|---|----|----|----|----|
| Phe Pro Gly Arg Thr His Ala Leu Cys Arg Gly Ala Ala Ser Arg Gly | 1 | | 5 | | 10 | | 15 |
| Leu Leu Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr | | 20 | | 25 | | 30 | |
| Arg Asp Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Asp Pro Thr | | 35 | | 40 | | 45 | |
| Ser Gln Gln Ala Lys Ala Trp Arg Pro Ser Pro Pro Ala Ala Arg Ser | | 50 | | 55 | | 60 | |
| Trp Pro Pro Thr Thr Thr Thr Gly Ala Ala Trp Val Pro Leu Pro Ala | | 65 | | 70 | | 75 | 80 |
| Thr Ala Pro Ala Ala Val Pro Ser Ala Pro Gly Lys Pro Phe Pro Thr | | 85 | | 90 | | 95 | |

1428

Pro Gln Val Ser Pro Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser
100 105 110

Phe Ser Gly Ser Pro Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro
115 120 125

Gln Ser Thr Arg Asn Leu Pro Arg Pro Pro Ala Ala
130 135 140

<210> 1372

<211> 150

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

$\langle 222 \rangle$ (126)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (128)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$

<221> SITE

$\langle 222 \rangle$ (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1372

Pro Trp Thr Leu Gly Gly Pro Glu Leu Asp Ala Met Gly Gly Cys Ala
1 5 10 15

1429

Gly Ser Arg Arg Arg Phe Ser Asp Ser Glu Gly Glu Glu Thr Val Pro
 20 25 30
 Glu Pro Arg Leu Pro Leu Leu Asp His Gln Gly Ala His Trp Lys Asn
 35 40 45
 Ala Val Gly Phe Trp Leu Leu Gly Leu Cys Asn Asn Phe Ser Tyr Val
 50 55 60
 Val Met Leu Ser Ala Ala His Asp Ile Leu Ser His Lys Arg Thr Ser
 65 70 75 80
 Gly Asn Gln Ser His Val Asp Pro Gly Pro Thr Pro Ile Pro His Asn
 85 90 95
 Ser Ser Ser Arg Phe Asp Cys Asn Ser Val Ser Thr Ala Ala Val Leu
 100 105 110
 Leu Ala Asp Ile Leu Pro Thr Leu Val Ile Lys Leu Leu Xaa Xaa Xaa
 115 120 125
 Gly Leu His Leu Leu Pro Xaa Thr Val Glu Asp Ala Val Xaa Leu Cys
 130 135 140
 Ala Leu Xaa Gly Thr Ala
 145 150

<210> 1373

<211> 128

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1373

Arg His Ser Arg Val Asp Pro Arg Val Arg Ala Arg Phe Arg Arg Arg
 1 5 10 15

Arg Ala Phe Ala Xaa Leu Gly Trp Ser Ser Gly Arg Val Ser Arg Pro
 20 25 30

1430

Glu His Val Asp Ala His Pro Pro Leu Ser Leu Met Glu Val Val Thr
 35 40 45
 Phe Gly Asp Val Ala Val His Phe Ser Arg Glu Glu Trp Gln Cys Leu
 50 55 60
 Asp Pro Gly Gln Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn His
 65 70 75 80
 Ser Ser Val Ala Gly Leu Ala Gly Phe Leu Val Phe Lys Pro Glu Leu
 85 90 95
 Ile Ser Arg Leu Glu Gln Gly Glu Glu Pro Trp Val Leu Asp Leu Gln
 100 105 110
 Gly Ala Glu Gly Thr Glu Ala Pro Xaa Thr Ser Lys Thr Gly Glu Ala
 115 120 125

<210> 1374

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1374

Ser Ser Trp Leu Arg Ser Arg Ser Gly Met Gln Thr Asp Leu Gln Asn
 1 5 10 15
 Leu Gly Asn Asp Ser Gly Asp His Ser Asp His Met His Tyr Tyr Gln
 20 25 30
 Gly Lys Lys Tyr Phe Arg Asp Arg Arg Gly Gly Gly Arg Asn Ser Asp
 35 40 45
 Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys
 50 55 60
 Tyr Ile Tyr Asp Ser Ala Thr Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly
 65 70 75 80
 Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp
 85 90 95
 Pro Gly Leu Pro Glu Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser
 100 105 110
 Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys

1431

| | | |
|---|-----|-----|
| 115 | 120 | 125 |
| Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu | | |
| 130 | 135 | 140 |
| Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr | | |
| 145 | 150 | 155 |
| Val Lys Lys Glu Glu Ser Pro Pro Pro Lys Val Val Asn Pro Leu | | |
| 165 | 170 | 175 |
| Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu | | |
| 180 | 185 | 190 |
| Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro | | |
| 195 | 200 | 205 |
| Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu | | |
| 210 | 215 | 220 |
| Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro | | |
| 225 | 230 | 235 |
| Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu Ser Asp Leu His Lys | | |
| 245 | 250 | 255 |
| Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu | | |
| 260 | 265 | 270 |
| Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly | | |
| 275 | 280 | 285 |
| Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys | | |
| 290 | 295 | 300 |
| Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp | | |
| 305 | 310 | 315 |
| Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala | | |
| 325 | 330 | 335 |
| Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu | | |
| 340 | 345 | 350 |
| Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly | | |
| 355 | 360 | 365 |
| Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp | | |
| 370 | 375 | 380 |
| Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys Glu Leu Asp | | |

1432

385

390

395

<210> 1375

<211> 167

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (161)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (163)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1375

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Arg | Gly | Lys | Arg | Tyr | Thr | Asp | Ser | Thr | Val | Arg | Asn | Ser | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Arg | Val | Arg | Ser | Ala | Lys | Pro | Glu | Ser | Cys | Pro | Phe | Ser | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Gln | His | Glu | Leu | His | His | Ser | Leu | His | Leu | Leu | His | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Pro | Gly | Leu | Cys | Pro | Gly | Ala | Gln | Leu | Arg | Arg | Pro | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Arg | Gly | Gln | Arg | Leu | Cys | Arg | Arg | Trp | Gly | Leu | Trp | Phe | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Leu | Arg | Val | Pro | Leu | His | Gln | Leu | Gln | Gly | Arg | His | Gly | Val | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Gly | His | Arg | Asp | Ser | Arg | Gly | Ser | Gly | Arg | Asn | Gly | Ser | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Glu | Lys | Glu | Thr | Met | Gln | Lys | Leu | Asn | Asp | Arg | Leu | Ala | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Asp | Lys | Met | Lys | Glu | Pro | Gly | Asp | Arg | Glu | Thr | Gly | Gly | Trp |
| | 130 | | | | | | 135 | | | | | 140 | | | |

1433

Lys Ala Lys Thr Arg Glu His Phe Gly Glu Glu Gly Xaa Gln Val Arg
 145 150 155 160

Xaa Trp Xaa Pro Leu Ile Gln
 165

<210> 1376

<211> 448

<212> PRT

<213> Homo sapiens

<400> 1376

Leu Pro Asp Val Glu Lys Leu Gly Arg Arg Arg Gly Arg Lys Met Asp
 1 5 10 15

Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg Gly Arg
 20 25 30

Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg Gly Gly
 35 40 45

Gln Gly Arg Gly Val Glu Lys Pro Pro His Leu Ala Ala Leu Ile Leu
 50 55 60

Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys His Leu
 65 70 75 80

Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu Asp Ser
 85 90 95

Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu Ile Glu
 100 105 110

Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser Ser Glu
 115 120 125

Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu Phe Leu
 130 135 140

Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala Thr Ser
 145 150 155 160

Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met Ile Arg
 165 170 175

Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His Gln Phe
 180 185 190

1434

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Trp | Ser | Glu | Ile | Gln | Lys | Gly | Val | Arg | Glu | Val | Thr | Glu | Pro | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asn | Leu | Asn | Pro | Ala | Lys | Arg | Pro | Arg | Arg | Gln | Asp | Trp | Asp | Gly | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Tyr | Glu | Asn | Gly | Ser | Phe | Tyr | Phe | Ala | Lys | Arg | His | Leu | Ile | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Met | Gly | Tyr | Leu | Gln | Gly | Gly | Lys | Met | Ala | Tyr | Tyr | Glu | Met | Arg | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | His | Ser | Val | Asp | Ile | Asp | Val | Asp | Ile | Asp | Trp | Pro | Ile | Ala | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Arg | Val | Leu | Arg | Tyr | Gly | Tyr | Phe | Gly | Lys | Glu | Lys | Leu | Lys | Glu |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ile | Lys | Leu | Leu | Val | Cys | Asn | Ile | Asp | Gly | Cys | Leu | Thr | Asn | Gly | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Tyr | Val | Ser | Gly | Asp | Gln | Lys | Glu | Ile | Ile | Ser | Tyr | Asp | Val | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Ala | Ile | Gly | Ile | Ser | Leu | Leu | Lys | Lys | Ser | Gly | Ile | Glu | Val | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Ile | Ser | Glu | Arg | Ala | Cys | Ser | Lys | Gln | Thr | Leu | Ser | Ser | Leu | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Asp | Cys | Lys | Met | Glu | Val | Ser | Val | Ser | Asp | Lys | Leu | Ala | Val | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asp | Glu | Trp | Arg | Lys | Glu | Met | Gly | Leu | Cys | Trp | Lys | Glu | Val | Ala | Tyr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Gly | Asn | Glu | Val | Ser | Asp | Glu | Glu | Cys | Leu | Lys | Arg | Val | Gly | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ser | Gly | Ala | Pro | Ala | Asp | Ala | Cys | Ser | Thr | Ala | Gln | Lys | Ala | Val | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Ile | Cys | Lys | Cys | Asn | Gly | Gly | Arg | Gly | Ala | Ile | Arg | Glu | Phe | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | His | Ile | Cys | Leu | Leu | Met | Glu | Lys | Val | Asn | Asn | Ser | Cys | Gln | Lys |
| | 435 | | | | | | 440 | | | | | 445 | | | |

1435

<210> 1377

<211> 469

<212> PRT

<213> Homo sapiens

<400> 1377

Gly Gly Pro Ala Lys Met Ala Ala Ser Cys Leu Val Leu Leu Ala Leu
 1 5 10 15
 Cys Leu Leu Leu Pro Leu Leu Leu Leu Gly Gly Trp Lys Arg Trp Arg
 20 25 30
 Arg Gly Arg Ala Ala Arg His Val Val Ala Val Val Leu Gly Asp Val
 35 40 45
 Gly Arg Ser Pro Arg Met Gln Tyr His Ala Leu Ser Leu Ala Met His
 50 55 60
 Gly Phe Ser Val Thr Leu Leu Gly Phe Cys Asn Ser Lys Pro His Asp
 65 70 75 80
 Glu Leu Leu Gln Asn Asn Arg Ile Gln Ile Val Gly Leu Thr Glu Leu
 85 90 95
 Gln Ser Leu Ala Val Gly Pro Arg Val Phe Gln Tyr Gly Val Lys Val
 100 105 110
 Val Leu Gln Ala Met Tyr Leu Leu Trp Lys Leu Met Trp Arg Glu Pro
 115 120 125
 Gly Ala Tyr Ile Phe Leu Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala
 130 135 140
 Val Cys Trp Phe Val Gly Cys Leu Cys Gly Ser Lys Leu Val Ile Asp
 145 150 155 160
 Trp His Asn Tyr Gly Tyr Ser Ile Met Gly Leu Val His Gly Pro Asn
 165 170 175
 His Pro Leu Val Leu Leu Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg
 180 185 190
 Leu Ser His Leu Asn Leu Cys Val Thr Asn Ala Met Arg Glu Asp Leu
 195 200 205
 Ala Asp Asn Trp His Ile Arg Ala Val Thr Val Tyr Asp Lys Pro Ala
 210 215 220
 Ser Phe Phe Lys Glu Thr Pro Leu Asp Leu Gln His Arg Leu Phe Met

1436

| | | | | | | | | | | | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|--|
| 225 | | | 230 | | | | | 235 | | | | | 240 | | | | | |
| Lys | Leu | Gly | Ser | Met | His | Ser | Pro | Phe | Arg | Ala | Arg | Ser | Glu | Pro | Glu | | | |
| | | | | 245 | | | | | | | 250 | | | 255 | | | | |
| Asp | Pro | Val | Thr | Glu | Arg | Ser | Ala | Phe | Thr | Glu | Arg | Asp | Ala | Gly | Ser | | | |
| | | | | 260 | | | | | | | 265 | | | 270 | | | | |
| Gly | Leu | Val | Thr | Arg | Leu | Arg | Glu | Arg | Pro | Ala | Leu | Leu | Val | Ser | Ser | | | |
| | | | | 275 | | | | | | | 280 | | | 285 | | | | |
| Thr | Ser | Trp | Thr | Glu | Asp | Glu | Asp | Phe | Ser | Ile | Leu | Leu | Ala | Ala | Leu | | | |
| | | | | 290 | | | | | | | 295 | | | 300 | | | | |
| Glu | Lys | Phe | Glu | Gln | Leu | Thr | Leu | Asp | Gly | His | Asn | Leu | Pro | Ser | Leu | | | |
| 305 | | | | | | | 310 | | | | | | | 315 | | | 320 | |
| Val | Cys | Val | Ile | Thr | Gly | Lys | Gly | Pro | Leu | Arg | Glu | Tyr | Tyr | Ser | Arg | | | |
| | | | | 325 | | | | | | | 330 | | | 335 | | | | |
| Leu | Ile | His | Gln | Lys | His | Phe | Gln | His | Ile | Gln | Val | Cys | Thr | Pro | Trp | | | |
| | | | | 340 | | | | | | | 345 | | | 350 | | | | |
| Leu | Glu | Ala | Glu | Asp | Tyr | Pro | Leu | Leu | Leu | Gly | Ser | Ala | Asp | Leu | Gly | | | |
| | | | | 355 | | | | | | | 360 | | | 365 | | | | |
| Val | Cys | Leu | His | Thr | Ser | Ser | Ser | Gly | Leu | Asp | Leu | Pro | Met | Lys | Val | | | |
| | | | | 370 | | | | | | | 375 | | | 380 | | | | |
| Val | Asp | Met | Phe | Gly | Cys | Cys | Leu | Pro | Val | Cys | Ala | Val | Asn | Phe | Lys | | | |
| 385 | | | | | | | 390 | | | | | | | 395 | | | 400 | |
| Cys | Leu | His | Glu | Leu | Val | Lys | His | Glu | Glu | Asn | Gly | Leu | Val | Phe | Glu | | | |
| | | | | 405 | | | | | | | 410 | | | 415 | | | | |
| Asp | Ser | Glu | Glu | Leu | Ala | Ala | Gln | Leu | Gln | Met | Leu | Phe | Ser | Asn | Phe | | | |
| | | | | 420 | | | | | | | 425 | | | 430 | | | | |
| Pro | Asp | Pro | Ala | Gly | Lys | Leu | Asn | Gln | Phe | Arg | Lys | Asn | Leu | Arg | Glu | | | |
| | | | | 435 | | | | | | | 440 | | | 445 | | | | |
| Ser | Gln | Gln | Leu | Arg | Trp | Asp | Glu | Ser | Trp | Val | Gln | Thr | Val | Leu | Pro | | | |
| 450 | | | | | | | 455 | | | | | | | 460 | | | | |
| Leu Val Met Asp Thr | | | | | | | | | | | | | | | | | | |
| 465 | | | | | | | | | | | | | | | | | | |

<210> 1378

<211> 314

1437

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1378

Glu Lys Ala Ala Gly Ala Gly Lys Ser His Leu Ala Ile Val Gln Lys
 1 5 10 15

Val Asn Asn Glu Gly Glu Gly Asp Pro Phe Tyr Glu Val Leu Gly Leu
 20 25 30

Val Thr Leu Glu Asp Val Ile Glu Glu Ile Ile Lys Ser Glu Ile Leu
 35 40 45

Asp Glu Ser Asp Met Tyr Thr Asp Asn Arg Ser Arg Lys Arg Val Ser
 50 55 60

Glu Lys Asn Lys Arg Asp Phe Ser Ala Phe Lys Asp Ala Asp Asn Glu
 65 70 75 80

Leu Lys Val Lys Ile Ser Pro Gln Leu Leu Leu Ala Xaa His Arg Phe
 85 90 95

Leu Ala Thr Glu Val Ser Gln Phe Ser Pro Ser Leu Ile Ser Glu Lys
 100 105 110

Ile Leu Leu Arg Leu Leu Lys Tyr Pro Asp Val Ile Gln Glu Leu Lys
 115 120 125

Phe Asp Glu His Asn Lys Tyr Tyr Ala Arg His Tyr Leu Tyr Thr Arg
 130 135 140

Asn Lys Pro Ala Asp Tyr Phe Ile Leu Ile Leu Gln Gly Lys Val Glu
 145 150 155 160

Val Glu Ala Gly Lys Glu Asn Met Lys Phe Glu Thr Gly Ala Phe Ser
 165 170 175

Tyr Tyr Gly Thr Met Ala Leu Thr Ser Val Pro Ser Asp Arg Ser Pro
 180 185 190

Ala His Pro Thr Pro Leu Ser Arg Ser Ala Ser Leu Ser Tyr Pro Asp
 195 200 205

Arg Thr Asp Val Ser Thr Ala Ala Thr Leu Ala Gly Ser Ser Asn Gln
 210 215 220

1438

Phe Gly Ser Ser Val Leu Gly Gln Tyr Ile Ser Asp Phe Ser Val Arg
 225 230 235 240
 Ala Leu Val Asp Leu Gln Tyr Ile Lys Ile Thr Arg Gln Gln Tyr Gln
 245 250 255
 Asn Gly Leu Leu Ala Ser Arg Met Glu Asn Ser Pro Gln Phe Pro Ile
 260 265 270
 Asp Gly Cys Thr Thr His Met Glu Asn Leu Ala Glu Lys Ser Glu Leu
 275 280 285
 Pro Val Val Asp Glu Thr Thr Thr Leu Leu Asn Glu Arg Asn Ser Leu
 290 295 300
 Leu His Lys Ala Ser His Glu Asn Ala Ile
 305 310

<210> 1379
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 1379
 Ser Cys Pro Val Leu Lys Met Phe Pro Glu Gln Gln Lys Glu Glu Phe
 1 5 10 15
 Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe Trp
 20 25 30
 His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met Cys
 35 40 45
 Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu Phe Val
 50 55 60
 Trp Leu Arg Gln Arg Leu Gln Ser Asn Ala Leu Leu Val Gln Leu Pro
 65 70 75 80
 Glu Leu Pro Ser Lys Asn Leu Phe Phe Asn Met Asn Asn Arg Gln His
 85 90 95
 Val Asp Gln Arg Arg Gln Gly Leu Gly Asn Phe Leu Arg Lys Val Leu
 100 105 110
 Gln Met His Phe Cys Phe Gln Ile Ala Ala Phe Thr Ser Ser Leu Gln
 115 120 125
 Ser His Leu

1439

130

<210> 1380

<211> 219

<212> PRT

<213> Homo sapiens

<400> 1380

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ala | Ala | Trp | Ser | Arg | Pro | Asp | Leu | Arg | Gly | Cys | Cys | Thr | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gln | Pro | Ala | Leu | Arg | Met | Leu | Val | Leu | Pro | Ser | Pro | Cys | Pro | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Ala | Phe | Ser | Ser | Val | Glu | Thr | Met | Glu | Gly | Pro | Pro | Arg | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Cys | Arg | Ser | Pro | Glu | Pro | Gly | Pro | Ser | Ser | Ser | Ile | Gly | Ser | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Ser | Ser | Pro | Pro | Arg | Pro | Asn | His | Tyr | Leu | Leu | Ile | Asp | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Val | Pro | Tyr | Thr | Val | Leu | Val | Asp | Glu | Glu | Ser | Gln | Arg | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ala | Ser | Gly | Ala | Pro | Gly | Gln | Lys | Lys | Cys | Tyr | Ser | Cys | Pro |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Cys | Ser | Arg | Val | Phe | Glu | Tyr | Met | Ser | Tyr | Leu | Gln | Arg | His | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | His | Ser | Glu | Val | Lys | Pro | Phe | Glu | Cys | Asp | Ile | Cys | Gly | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Lys | Arg | Ala | Ser | His | Leu | Ala | Arg | His | His | Ser | Ile | His | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Gly | Gly | Arg | Pro | His | Gly | Cys | Pro | Leu | Cys | Pro | Arg | Arg | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asp | Ala | Gly | Glu | Leu | Ala | Gln | His | Ser | Arg | Val | His | Ser | Gly | Glu |
| | | 180 | | | | | 185 | | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | Phe | Gln | Cys | Pro | His | Cys | Pro | Arg | Arg | Phe | Met | Glu | Gln | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Gln | Lys | His | Thr | Arg | Trp | Lys | His | Pro |
| | 210 | | | | | 215 | | | | |

1440

<210> 1381

<211> 275

<212> PRT

<213> Homo sapiens

<400> 1381

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Ala | Leu | Phe | Lys | Ser | Ala | Ala | Gly | Asp | Gln | Pro | Thr | Ala | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Ile | Cys | Ile | Gln | Arg | Gln | Val | Pro | Pro | Val | Pro | Ala | Ala | Arg | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Gln | Ser | Arg | Thr | Arg | Ser | Ala | Gln | Ala | Lys | Leu | Ala | Leu | Thr | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Val | Lys | Gly | Gly | Thr | Lys | Cys | Ile | Lys | Tyr | Leu | Leu | Phe | Gly | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Phe | Ile | Phe | Trp | Leu | Ala | Gly | Ile | Ala | Val | Leu | Ala | Ile | Gly | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Trp | Leu | Arg | Phe | Asp | Ser | Gln | Thr | Lys | Ser | Ile | Phe | Glu | Gln | Glu | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asn | Asn | Asn | Asn | Ser | Ser | Phe | Tyr | Thr | Gly | Val | Tyr | Ile | Leu | Ile | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gly | Ala | Leu | Met | Met | Leu | Val | Gly | Phe | Leu | Gly | Cys | Cys | Gly | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Gln | Glu | Ser | Gln | Cys | Met | Leu | Gly | Leu | Phe | Phe | Gly | Phe | Leu | Leu |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Val | Ile | Phe | Ala | Ile | Glu | Ile | Ala | Ala | Ala | Ile | Trp | Gly | Tyr | Ser | His |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Asp | Glu | Val | Ile | Lys | Glu | Val | Gln | Glu | Phe | Tyr | Lys | Asp | Thr | Tyr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Asn | Lys | Leu | Lys | Thr | Lys | Asp | Glu | Pro | Gln | Arg | Glu | Thr | Leu | Lys | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | His | Tyr | Ala | Leu | Asn | Cys | Cys | Gly | Leu | Ala | Gly | Gly | Val | Glu | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Phe | Ile | Ser | Asp | Ile | Cys | Pro | Lys | Lys | Asp | Val | Leu | Glu | Thr | Phe | Thr |
| | 210 | | | | | | 215 | | | | | 220 | | | |

1441

Val Lys Ser Cys Pro Asp Ala Ile Lys Glu Val Phe Asp Asn Lys Phe
 225 230 235 240

His Ile Ile Gly Ala Val Gly Ile Gly Ile Ala Val Val Met Ile Phe
 245 250 255

Gly Met Ile Phe Ser Met Ile Leu Cys Cys Ala Ile Arg Arg Asn Arg
 260 265 270

Glu Met Val
 275

<210> 1382

<211> 766

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1382

Pro Cys Trp Glu Leu Val Gly Pro Pro Gly Trp Gln Xaa Ile Arg Ala
 1 5 10 15

Xaa Pro Ala Thr Val His Arg Ala Glu Ile Leu Ser Phe Pro Arg Ser
 20 25 30

Lys Thr Ser Glu Pro Ala Lys Arg Gly Arg Thr Ala Ser Ala Ala Met
 35 40 45

Ala Leu Lys Asp Tyr Ala Leu Glu Lys Glu Lys Val Lys Lys Phe Leu
 50 55 60

Gln Glu Phe Tyr Gln Asp Asp Glu Leu Gly Lys Lys Gln Phe Lys Tyr
 65 70 75 80

Gly Asn Gln Leu Val Arg Leu Ala His Arg Glu Gln Val Ala Leu Tyr

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| | 85 | | | | | | 90 | | | | | | 95 | | | | | |
| Val | Asp | Leu | Asp | Asp | Val | Ala | Glu | Asp | Asp | Pro | Glu | Leu | Val | Asp | Ser | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Ile | Cys | Glu | Asn | Ala | Arg | Arg | Tyr | Ala | Lys | Xaa | Phe | Ala | Asp | Ala | Val | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | |
| Gln | Glu | Leu | Leu | Pro | Gln | Tyr | Lys | Glu | Arg | Glu | Val | Val | Asn | Lys | Asp | | | |
| | | 130 | | | | | 135 | | | | 140 | | | | | | | |
| Val | Leu | Asp | Val | Tyr | Ile | Glu | His | Arg | Leu | Met | Met | Glu | Gln | Arg | Ser | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Arg | Asp | Pro | Gly | Met | Val | Arg | Ser | Pro | Gln | Asn | Gln | Tyr | Pro | Ala | Glu | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | |
| Leu | Met | Arg | Arg | Phe | Glu | Leu | Tyr | Phe | Gln | Gly | Pro | Ser | Ser | Asn | Lys | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | |
| Pro | Arg | Val | Ile | Arg | Glu | Val | Arg | Ala | Asp | Ser | Val | Gly | Lys | Leu | Val | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | |
| Thr | Val | Arg | Gly | Ile | Val | Thr | Arg | Val | Ser | Glu | Val | Lys | Pro | Lys | Met | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | |
| Val | Val | Ala | Thr | Tyr | Thr | Cys | Asp | Gln | Cys | Gly | Ala | Glu | Thr | Tyr | Gln | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Pro | Ile | Gln | Ser | Pro | Thr | Phe | Met | Pro | Leu | Ile | Met | Cys | Pro | Ser | Gln | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | |
| Glu | Cys | Gln | Thr | Asn | Arg | Ser | Gly | Gly | Arg | Leu | Tyr | Leu | Gln | Thr | Arg | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | |
| Gly | Ser | Arg | Phe | Ile | Lys | Phe | Gln | Glu | Met | Lys | Met | Gln | Glu | His | Ser | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | | |
| Asp | Gln | Val | Pro | Val | Gly | Asn | Ile | Pro | Arg | Ser | Ile | Thr | Val | Leu | Val | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | |
| Glu | Gly | Glu | Asn | Thr | Arg | Ile | Ala | Gln | Pro | Gly | Asp | His | Val | Ser | Val | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | |
| Thr | Gly | Ile | Phe | Leu | Pro | Ile | Leu | Arg | Thr | Gly | Phe | Arg | Gln | Val | Val | | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | | |
| Gln | Gly | Leu | Leu | Ser | Glu | Thr | Tyr | Leu | Glu | Ala | His | Arg | Ile | Val | Lys | | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | | |
| Met | Asn | Lys | Ser | Glu | Asp | Asp | Glu | Ser | Gly | Ala | Gly | Glu | Leu | Thr | Arg | | | |

1443

| | | | | |
|---|-----|-----|-----|-----|
| 355 | | 360 | | 365 |
| Glu Glu Leu Arg Gln Ile Ala Glu Glu Asp Phe Tyr Glu Lys Leu Ala | | | | |
| 370 | | 375 | | 380 |
| Ala Ser Ile Ala Pro Glu Ile Tyr Gly His Glu Asp Val Lys Lys Ala | | | | |
| 385 | | 390 | | 395 |
| Leu Leu Leu Leu Leu Val Gly Gly Val Asp Gln Ser Pro Arg Gly Met | | | | |
| | 405 | | 410 | 415 |
| Lys Ile Arg Gly Asn Ile Asn Ile Cys Leu Met Gly Asp Pro Gly Val | | | | |
| | 420 | | 425 | 430 |
| Ala Lys Ser Gln Leu Leu Ser Tyr Ile Asp Arg Leu Ala Pro Arg Ser | | | | |
| | 435 | | 440 | 445 |
| Gln Tyr Thr Thr Gly Arg Gly Ser Ser Gly Val Gly Leu Thr Ala Ala | | | | |
| | 450 | | 455 | 460 |
| Val Leu Arg Asp Ser Val Ser Gly Glu Leu Thr Leu Glu Gly Gly Ala | | | | |
| 465 | | 470 | | 475 |
| Leu Val Leu Ala Asp Gln Gly Val Cys Cys Ile Asp Glu Phe Asp Lys | | | | |
| | 485 | | 490 | 495 |
| Met Ala Glu Ala Asp Arg Thr Ala Ile His Glu Val Met Glu Gln Gln | | | | |
| | 500 | | 505 | 510 |
| Thr Ile Ser Ile Ala Lys Ala Gly Ile Leu Thr Thr Leu Asn Ala Arg | | | | |
| | 515 | | 520 | 525 |
| Cys Ser Ile Leu Ala Ala Ala Asn Pro Ala Tyr Gly Arg Tyr Asn Pro | | | | |
| 530 | | 535 | | 540 |
| Arg Arg Ser Leu Glu Gln Asn Ile Gln Leu Pro Ala Ala Leu Leu Ser | | | | |
| 545 | | 550 | | 555 |
| Arg Phe Asp Leu Leu Trp Leu Ile Gln Asp Arg Pro Asp Arg Asp Asn | | | | |
| | 565 | | 570 | 575 |
| Asp Leu Arg Leu Ala Gln His Ile Thr Tyr Val His Gln His Ser Arg | | | | |
| | 580 | | 585 | 590 |
| Gln Pro Pro Ser Gln Phe Glu Pro Leu Asp Met Lys Leu Met Arg Arg | | | | |
| | 595 | | 600 | 605 |
| Tyr Ile Ala Met Cys Arg Glu Lys Gln Pro Met Val Pro Glu Ser Leu | | | | |
| 610 | | 615 | | 620 |
| Ala Asp Tyr Ile Thr Ala Ala Tyr Val Glu Met Arg Arg Glu Ala Trp | | | | |

1444

| | | | | | | |
|-------------------------|---|-----------------------------|-----|-----|--|-----|
| 625 | | 630 | | 635 | | 640 |
| Ala Ser Lys Asp | Ala Thr Tyr Thr Ser | Ala Arg Thr Leu Leu Ala Ile | | | | |
| | 645 | 650 | 655 | | | |
| Leu Arg Leu Ser | Thr Ala Leu Ala Arg Leu Arg Met Val | Asp Val Val | | | | |
| | 660 | 665 | 670 | | | |
| Glu Lys Glu Asp | Val Asn Glu Ala Ile Arg Leu Met | Glu Met Ser Lys | | | | |
| | 675 | 680 | 685 | | | |
| Asp Ser Leu Leu Gly Asp | Lys Gly Gln Thr Ala Arg Thr Gln Arg Pro | | | | | |
| | 690 | 695 | 700 | | | |
| Ala Asp Val Ile Phe | Ala Thr Val Arg Glu Leu Val Ser Gly Gly Arg | | | | | |
| 705 | 710 | 715 | 720 | | | |
| Ser Val Arg Phe Ser | Glu Ala Glu Gln Arg Cys Val Ser Arg Gly Phe | | | | | |
| | 725 | 730 | 735 | | | |
| Thr Pro Ala Gln Phe | Gln Ala Ala Leu Asp Glu Tyr Glu Glu Leu Asn | | | | | |
| | 740 | 745 | 750 | | | |
| Val Trp Gln Val Asn | Ala Ser Arg Thr Arg Ile Thr Phe Val | | | | | |
| | 755 | 760 | 765 | | | |

<210> 1383

<211> 296

<212> PRT

<213> Homo sapiens

<400> 1383

| | | |
|---------------------|-------------------------------------|-------------------------|
| Phe Arg Pro Gly Ser | Pro Arg Gln Pro Arg | Ala Gln Pro Ile Ser Ala |
| 1 | 5 | 10 |
| Pro Asp Cys Thr Arg | Ala Met Val Gly Arg Arg | Ala Leu Ile Val Leu |
| 20 | 25 | 30 |
| Ala His Ser Glu Arg | Thr Ser Phe Asn Tyr Ala Met | Lys Glu Ala Ala |
| 35 | 40 | 45 |
| Ala Ala Ala Leu Lys | Lys Lys Gly Trp Glu Val Val | Glu Ser Asp Leu |
| 50 | 55 | 60 |
| Tyr Ala Met Asn Phe | Asn Pro Ile Ile Ser Arg Lys Asp | Ile Thr Gly |
| 65 | 70 | 75 |
| Lys Leu Lys Asp Pro | Ala Asn Phe Gln Tyr Pro Ala Glu Ser | Val Leu |
| 85 | 90 | 95 |

1445

Ala Tyr Lys Glu Gly His Leu Ser Pro Asp Ile Val Ala Glu Gln Lys
 100 105 110
 Lys Leu Glu Ala Ala Asp Leu Val Ile Phe Gln Phe Pro Leu Gln Trp
 115 120 125
 Phe Gly Val Pro Ala Ile Leu Lys Gly Trp Phe Glu Arg Val Phe Ile
 130 135 140
 Gly Glu Phe Ala Tyr Thr Tyr Ala Ala Met Tyr Asp Lys Gly Pro Phe
 145 150 155 160
 Arg Ser Lys Lys Ala Val Leu Ser Ile Thr Thr Gly Gly Ser Gly Ser
 165 170 175
 Met Tyr Ser Leu Gln Gly Ile His Gly Asp Met Asn Val Ile Leu Trp
 180 185 190
 Pro Ile Gln Ser Gly Ile Leu His Phe Cys Gly Phe Gln Val Leu Glu
 195 200 205
 Pro Gln Leu Thr Tyr Ser Ile Gly His Thr Pro Ala Asp Ala Arg Ile
 210 215 220
 Gln Ile Leu Glu Gly Trp Lys Lys Arg Leu Glu Asn Ile Trp Asp Glu
 225 230 235 240
 Thr Pro Leu Tyr Phe Ala Pro Ser Ser Leu Phe Asp Leu Asn Phe Gln
 245 250 255
 Ala Gly Phe Leu Met Lys Lys Glu Val Gln Asp Glu Glu Lys Asn Lys
 260 265 270
 Lys Phe Gly Leu Ser Val Gly His His Leu Gly Lys Ser Ile Pro Thr
 275 280 285
 Asp Asn Gln Ile Lys Ala Arg Lys
 290 295

<210> 1384

<211> 165

<212> PRT

<213> Homo sapiens

<400> 1384

Asp Pro Arg Thr Met Asn Leu Ala Ile Ser Ile Ala Leu Leu Leu Thr
 1 5 10 15

1446

Val Leu Gln Val Ser Arg Gly Gln Lys Val Thr Ser Leu Thr Ala Cys
 20 25 30
 Leu Val Asp Gln Ser Leu Arg Leu Asp Cys Arg His Glu Asn Thr Ser
 35 40 45
 Ser Ser Pro Ile Gln Tyr Glu Phe Ser Leu Thr Arg Glu Thr Lys Lys
 50 55 60
 His Val Leu Phe Gly Thr Val Gly Val Pro Glu His Thr Tyr Arg Ser
 65 70 75 80
 Arg Thr Asn Phe Thr Ser Lys Tyr Asn Met Lys Val Leu Tyr Leu Ser
 85 90 95
 Ala Phe Thr Ser Lys Asp Glu Gly Thr Tyr Thr Cys Ala Leu His His
 100 105 110
 Ser Gly His Ser Pro Pro Ile Ser Ser Gln Asn Val Thr Val Leu Arg
 115 120 125
 Asp Lys Leu Val Lys Cys Glu Gly Ile Ser Leu Leu Ala Gln Asn Thr
 130 135 140
 Ser Trp Leu Leu Leu Leu Leu Leu Ser Leu Ser Leu Leu Gln Ala Thr
 145 150 155 160
 Asp Phe Met Ser Leu
 165

<210> 1385

<211> 399

<212> PRT

<213> Homo sapiens

<400> 1385

His Glu Arg Thr Pro Ser Arg Pro Gln Pro Asp Thr Pro Arg Gly Pro
 1 5 10 15
 Pro Val Ser Arg Gly Cys Ser Pro Arg His Gly Thr Gly Pro Arg Leu
 20 25 30
 Thr Met Ala Ala Ala Arg His Ser Thr Leu Asp Phe Met Leu Gly Ala
 35 40 45
 Lys Ala Asp Gly Glu Thr Ile Leu Lys Gly Leu Gln Ser Ile Phe Gln
 50 55 60
 Glu Gln Gly Met Ala Glu Ser Val His Thr Trp Gln Asp His Gly Tyr

1447

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | 70 | | 75 | | 80 | | | | | | | | | |
| Leu | Ala | Thr | Tyr | Thr | Asn | Lys | Asn | Gly | Ser | Phe | Ala | Asn | Leu | Arg | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Pro | His | Gly | Leu | Val | Leu | Leu | Asp | Leu | Gln | Ser | Tyr | Asp | Gly | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gln | Gly | Lys | Glu | Glu | Ile | Asp | Ser | Ile | Leu | Asn | Lys | Val | Glu | Glu |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Arg | Met | Lys | Glu | Leu | Ser | Gln | Asp | Ser | Thr | Gly | Arg | Val | Lys | Arg | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Pro | Ile | Val | Arg | Gly | Gly | Ala | Ile | Asp | Arg | Tyr | Trp | Pro | Thr | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | Gly | Arg | Leu | Val | Glu | Tyr | Asp | Ile | Asp | Glu | Val | Val | Tyr | Asp | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Ser | Pro | Tyr | Gln | Asn | Ile | Lys | Ile | Leu | His | Ser | Lys | Gln | Phe | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Ile | Leu | Ile | Leu | Ser | Gly | Asp | Val | Asn | Leu | Ala | Glu | Ser | Asp | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Tyr | Thr | Arg | Ala | Ile | Met | Gly | Ser | Gly | Lys | Glu | Asp | Tyr | Thr | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Asp | Val | Leu | Ile | Leu | Gly | Gly | Gly | Asp | Gly | Gly | Ile | Leu | Cys | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Val | Lys | Leu | Lys | Pro | Lys | Met | Val | Thr | Met | Val | Glu | Ile | Asp | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Met | Val | Ile | Asp | Gly | Cys | Lys | Lys | Tyr | Met | Arg | Lys | Thr | Cys | Gly | Asp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Leu | Asp | Asn | Leu | Lys | Gly | Asp | Cys | Tyr | Gln | Val | Leu | Ile | Glu | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Cys | Ile | Pro | Val | Leu | Lys | Arg | Tyr | Ala | Lys | Glu | Gly | Arg | Glu | Phe | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Tyr | Val | Ile | Asn | Asp | Leu | Thr | Ala | Val | Pro | Ile | Ser | Thr | Ser | Pro | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Asp | Ser | Thr | Trp | Glu | Phe | Leu | Arg | Leu | Ile | Leu | Asp | Leu | Ser | Met |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Lys | Val | Leu | Lys | Gln | Asp | Gly | Lys | Tyr | Phe | Thr | Gln | Gly | Asn | Cys | Val |

1448

340 345 350
 Asn Leu Thr Glu Ala Leu Ser Leu Tyr Glu Glu Gln Leu Gly Arg Leu
 355 360 365
 Tyr Cys Pro Val Glu Phe Ser Lys Glu Ile Val Cys Val Pro Ser Tyr
 370 375 380
 Leu Glu Leu Trp Val Phe Tyr Thr Val Trp Lys Lys Ala Lys Pro
 385 390 395

<210> 1386

<211> 287

<212> PRT

<213> Homo sapiens

<400> 1386

Phe Asp Cys Arg Asp Val Ala Phe Thr Val Gly Glu Gly Glu Asp His
 1 5 10 15
 Asp Ile Pro Ile Gly Ile Asp Lys Ala Leu Glu Lys Met Gln Arg Glu
 20 25 30
 Glu Gln Cys Ile Leu Tyr Leu Gly Pro Arg Tyr Gly Phe Gly Glu Ala
 35 40 45
 Gly Lys Pro Lys Phe Gly Ile Glu Pro Asn Ala Glu Leu Ile Tyr Glu
 50 55 60
 Val Thr Leu Lys Ser Phe Glu Lys Ala Lys Glu Ser Trp Glu Met Asp
 65 70 75 80
 Thr Lys Glu Lys Leu Glu Gln Ala Ala Ile Val Lys Glu Lys Gly Thr
 85 90 95
 Val Tyr Phe Lys Gly Gly Lys Tyr Met Gln Ala Val Ile Gln Tyr Gly
 100 105 110
 Lys Ile Val Ser Trp Leu Glu Met Glu Tyr Gly Leu Ser Glu Lys Glu
 115 120 125
 Ser Lys Ala Ser Glu Ser Phe Leu Leu Ala Ala Phe Leu Asn Leu Ala
 130 135 140
 Met Cys Tyr Leu Lys Leu Arg Glu Tyr Thr Lys Ala Val Glu Cys Cys
 145 150 155 160
 Asp Lys Ala Leu Gly Leu Asp Ser Ala Asn Glu Lys Gly Leu Tyr Arg
 165 170 175

1449

Arg Gly Glu Ala Gln Leu Leu Met Asn Glu Phe Glu Ser Ala Lys Gly
 180 185 190
 Asp Phe Glu Lys Val Leu Glu Val Asn Pro Gln Asn Lys Ala Ala Arg
 195 200 205
 Leu Gln Ile Ser Met Cys Gln Lys Lys Ala Lys Glu His Asn Glu Arg
 210 215 220
 Asp Arg Arg Tyr Thr Pro Thr Cys Ser Arg Ser Leu Gln Ser Arg Met
 225 230 235 240
 Pro Arg Lys Arg Pro Ile Lys Gln Trp Ala Arg Arg Leu Gln Lys Gly
 245 250 255
 Ser Leu Met Lys Lys Glu Gln Thr Val Lys Gln Trp Lys Lys Arg Asn
 260 265 270
 Leu Arg Ala Thr Tyr Asp Ala Thr Pro Arg Arg Glu Glu Ser Gln
 275 280 285

<210> 1387

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1387

Arg Leu Pro Ile Arg Gln Ser Ala Ala Asp Gly Leu Arg Ala Arg Pro
 1 5 10 15
 Leu Gly Ser Asn Thr Ala Pro Ala Leu Arg Val Met Val Gln Ala Trp
 20 25 30
 Tyr Met Asp Asp Ala Pro Gly Asp Pro Arg Gln Pro His Arg Pro Asp
 35 40 45
 Pro Gly Arg Pro Val Gly Leu Glu Gln Leu Arg Arg Leu Gly Val Leu
 50 55 60
 Tyr Trp Lys Leu Asp Ala Asp Lys Tyr Glu Asn Asp Pro Glu Leu Glu
 65 70 75 80
 Lys Ile Arg Arg Glu Arg Asn Tyr Ser Trp Met Asp Ile Ile Thr Ile
 85 90 95
 Cys Lys Asp Lys Leu Pro Asn Tyr Glu Glu Lys Ile Lys Met Phe Tyr
 100 105 110

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Glu | Glu | His | Leu | His | Leu | Asp | Asp | Glu | Ile | Arg | Tyr | Ile | Leu | Asp | Gly | |
| 115 | | | | | | 120 | | | | | | 125 | | | | |
| Ser | Gly | Tyr | Phe | Asp | Val | Arg | Asp | Lys | Glu | Asp | Gln | Trp | Ile | Arg | Ile | |
| 130 | | | | | | 135 | | | | | | 140 | | | | |
| Phe | Met | Glu | Lys | Gly | Asp | Met | Val | Thr | Leu | Pro | Ala | Gly | Ile | Tyr | His | |
| 145 | | | | | | 150 | | | | | | 155 | | | 160 | |
| Arg | Phe | Thr | Val | Asp | Glu | Lys | Asn | Tyr | Thr | Lys | Ala | Met | Arg | Leu | Phe | |
| | | | 165 | | | | | | 170 | | | | | | 175 | |
| Val | Gly | Glu | Pro | Val | Trp | Thr | Ala | Tyr | Asn | Arg | Pro | Ala | Asp | His | Phe | |
| | | | 180 | | | | | | 185 | | | | | | 190 | |
| Glu | Ala | Arg | Gly | Gln | Tyr | Val | Lys | Phe | Leu | Ala | Gln | Thr | Ala | | | |
| 195 | | | | | | 200 | | | | | | 205 | | | | |

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

Phe His Xaa Ala Ala His Tyr Ser Leu Pro Asp Gly Arg His Gly Arg
1 5 10 15

Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His
20 25 30

Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg
35 40 45

Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser
50 55 60

Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu
65 70 75 80

Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly
85 90 95

Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp
100 105 110

1451

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Gln | Leu | Ser | Lys | Thr | Leu | Glu | Leu | Arg | Val | Ala | Tyr | Leu | Asp | 115 | 120 | 125 | |
| Pro | Leu | Glu | Leu | Ser | Glu | Gly | Lys | Val | Leu | Ser | Leu | Pro | Leu | Asn | Ser | 130 | 135 | 140 | |
| Ser | Ala | Val | Val | Asn | Cys | Ser | Val | His | Gly | Leu | Pro | Thr | Pro | Ala | Leu | 145 | 150 | 155 | 160 |
| Arg | Trp | Thr | Lys | Asp | Ser | Thr | Pro | Leu | Gly | Asp | Gly | Pro | Met | Leu | Ser | 165 | 170 | 175 | |
| Leu | Ser | Ser | Ile | Thr | Phe | Asp | Ser | Asn | Gly | Thr | Tyr | Val | Cys | Glu | Ala | 180 | 185 | 190 | |
| Ser | Leu | Pro | Thr | Val | Pro | Val | Leu | Ser | Arg | Thr | Gln | Asn | Phe | Thr | Leu | 195 | 200 | 205 | |
| Leu | Val | Gln | Gly | Ser | Pro | Glu | Leu | Lys | Thr | Ala | Glu | Ile | Glu | Pro | Lys | 210 | 215 | 220 | |
| Ala | Asp | Gly | Ser | Trp | Arg | Glu | Gly | Asp | Glu | Val | Thr | Leu | Ile | Cys | Ser | 225 | 230 | 235 | 240 |
| Ala | Arg | Gly | His | Pro | Asp | Pro | Lys | Leu | Ser | Trp | Ser | Gln | Leu | Gly | Gly | 245 | 250 | 255 | |
| Ser | Pro | Ala | Glu | Pro | Ile | Pro | Gly | Arg | Gln | Gly | Trp | Val | Ser | Ser | Ser | 260 | 265 | 270 | |
| Leu | Thr | Leu | Lys | Val | Thr | Ser | Ala | Leu | Ser | Arg | Asp | Gly | Ile | Ser | Cys | 275 | 280 | 285 | |
| Glu | Ala | Ser | Asn | Pro | His | Gly | Asn | Lys | Arg | His | Val | Phe | His | Phe | Gly | 290 | 295 | 300 | |
| Thr | Val | Ser | Pro | Gln | Thr | Ser | Gln | Ala | Gly | Val | Ala | Val | Met | Ala | Val | 305 | 310 | 315 | 320 |
| Ala | Val | Ser | Val | Gly | Leu | Leu | Leu | Leu | Val | Val | Ala | Val | Phe | Tyr | Cys | 325 | 330 | 335 | |
| Val | Arg | Arg | Lys | Gly | Gly | Pro | Cys | Cys | Arg | Gln | Arg | Arg | Glu | Lys | Gly | 340 | 345 | 350 | |
| Ala | Pro | Pro | Pro | Gly | Glu | Pro | Gly | Leu | Ser | His | Ser | Gly | Ser | Glu | Gln | 355 | 360 | 365 | |
| Pro | Glu | Gln | Thr | Gly | Leu | Leu | Met | Gly | Gly | Ala | Ser | Gly | Gly | Ala | Arg | 370 | 375 | 380 | |

1452

Gly Gly Ser Gly Gly Phe Gly Asp Glu Cys
385 390

<210> 1389

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

Val Gly Cys Arg Trp Ser Arg Val Gly Pro Gln Asn Pro Arg Val Xaa
1 5 10 15

Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr Asp
20 25 30

Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val Glu
35 40 45

Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile Gln
50 55 60

Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser Pro
65 70 75 80

Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala His
85 90 95

Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu Ile
100 105 110

Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn Glu
115 120 125

Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala Leu
130 135 140

Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro Phe
145 150 155 160

Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln Leu
165 170 175

Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg Ala

1453

```
<210> 1390
<211> 178
<212> PRT
<213> Homo sapiens
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| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 1390 | | | | | | | | | | | | | | | | |
| Gln | Lys | Leu | Glu | Leu | His | Arg | Gly | Gly | Gly | Arg | Ser | Arg | Thr | Ser | Gly | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ser | Pro | Gly | Leu | Phe | Gly | Leu | Ser | Ala | Arg | Arg | Leu | Leu | Ala | Ala | Ala | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ala | Thr | Arg | Gly | Leu | Pro | Ala | Ala | Arg | Val | Arg | Trp | Glu | Ser | Ser | Phe | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Ser | Arg | Thr | Val | Val | Ala | Pro | Ser | Ala | Val | Ala | Gly | Lys | Arg | Pro | Pro | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Glu | Pro | Thr | Thr | Pro | Trp | Gln | Glu | Asp | Pro | Glu | Pro | Glu | Asp | Glu | Asn | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Tyr | Glu | Lys | Asn | Pro | Asp | Ser | His | Gly | Tyr | Asp | Lys | Asp | Pro | Val | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Asp | Val | Trp | Asn | Met | Arg | Leu | Val | Phe | Phe | Phe | Gly | Val | Ser | Ile | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ile | Leu | Val | Leu | Gly | Ser | Thr | Phe | Val | Ala | Tyr | Leu | Pro | Asp | Tyr | Arg | |
| | 115 | | | | | | 120 | | | | | 125 | | | | |
| Cys | Thr | Gly | Cys | Pro | Arg | Ala | Trp | Asp | Gly | Met | Lys | Glu | Trp | Ser | Arg | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |

1454

Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro
 145 150 155 160

Ile Met Glu Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu
 165 170 175

Asp Glu

<210> 1391

<211> 133

<212> PRT

<213> Homo sapiens

<400> 1391

Val Ile Ile Thr Ser Ile Asn Gln Lys Ile Phe His Pro Leu Arg Ala
 1 5 10 15

Leu Lys Leu Ser Thr Ser Ala Thr Phe Leu Ile Leu Val Leu Gly Gly
 20 25 30

His Val Tyr Gly Leu Phe Asn Phe His Val Pro Tyr Cys Pro Leu Pro
 35 40 45

Ala Val Ala Lys Ala Ser Cys Phe Ser Pro Thr Glu Glu Thr Val Leu
 50 55 60

Cys His Asp Asp Arg Ala Leu Leu Gly Leu Val Phe Leu Val Phe Pro
 65 70 75 80

Phe Trp Gln Cys Gly Leu Gln Glu Leu Asp Val Tyr Ala Gln Gly Ile
 85 90 95

Glu Phe Thr Leu Lys Leu Gly Asn Gly Val Phe Asn Leu Cys Ser Cys
 100 105 110

Leu Phe Ile Leu Leu Phe Ile Phe Cys His Pro Ala Leu Tyr Trp Ala
 115 120 125

Asn Asn Glu Ile Lys
 130

<210> 1392

<211> 401

<212> PRT

<213> Homo sapiens

1455

<400> 1392

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Asn Thr Val Leu Lys Lys Met Asp Glu Glu Pro Glu Arg Thr Lys Arg
 1              5              10              15

Trp Glu Gly Gly Tyr Glu Arg Thr Trp Glu Ile Leu Lys Glu Asp Glu
      20              25              30

Ser Gly Ser Leu Lys Ala Thr Ile Glu Asp Ile Leu Phe Lys Ala Lys
      35              40              45

Arg Lys Arg Val Phe Glu His His Gly Gln Val Arg Leu Gly Met Met
      50              55              60

Arg His Leu Tyr Val Val Val Asp Gly Ser Arg Thr Met Glu Asp Gln
      65              70              75              80

Asp Leu Lys Pro Asn Arg Leu Thr Cys Thr Leu Lys Leu Leu Glu Tyr
      85              90              95

Phe Val Glu Glu Tyr Phe Asp Gln Asn Pro Ile Ser Gln Ile Gly Ile
      100              105              110

Ile Val Thr Lys Ser Lys Arg Ala Glu Lys Leu Thr Glu Leu Ser Gly
      115              120              125

Asn Pro Arg Lys His Ile Thr Ser Leu Lys Lys Ala Val Asp Met Thr
      130              135              140

Cys His Gly Glu Pro Ser Leu Tyr Asn Ser Leu Ser Ile Ala Met Gln
      145              150              155              160

Thr Leu Lys His Met Pro Gly His Thr Ser Arg Glu Val Leu Ile Ile
      165              170              175

Phe Ser Ser Leu Thr Thr Cys Asp Pro Ser Asn Ile Tyr Asp Leu Ile
      180              185              190

Lys Thr Leu Lys Ala Ala Lys Ile Arg Val Ser Val Ile Gly Leu Ser
      195              200              205

Ala Glu Val Arg Val Cys Thr Val Leu Ala Arg Glu Thr Gly Gly Thr
      210              215              220

Tyr His Val Ile Leu Asp Glu Ser His Tyr Lys Glu Leu Leu Thr His
      225              230              235              240

His Val Ser Pro Pro Pro Ala Ser Ser Ser Ser Glu Cys Ser Leu Ile
      245              250              255

Arg Met Gly Phe Pro Gln His Thr Ile Ala Ser Leu Ser Asp Gln Asp

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1456

260 265 270
 Ala Lys Pro Ser Phe Ser Met Ala His Leu Asp Gly Asn Thr Glu Pro
 275 280 285
 Gly Leu Thr Leu Gly Gly Tyr Phe Cys Pro Gln Cys Arg Ala Lys Tyr
 290 295 300
 Cys Glu Leu Pro Val Glu Cys Lys Ile Cys Gly Leu Thr Leu Val Ser
 305 310 315 320
 Ala Pro His Leu Ala Arg Ser Tyr His His Leu Phe Pro Leu Asp Ala
 325 330 335
 Phe Gln Glu Ile Pro Leu Glu Glu Tyr Asn Gly Glu Arg Phe Cys Tyr
 340 345 350
 Gly Cys Gln Gly Glu Leu Lys Asp Gln His Val Tyr Val Cys Ala Val
 355 360 365
 Cys Gln Asn Val Phe Cys Val Asp Cys Asp Val Phe Val His Asp Ser
 370 375 380
 Leu His Cys Cys Pro Gly Cys Ile His Lys Ile Pro Ala Pro Ser Gly
 385 390 395 400
 Val

<210> 1393
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 1393
 Pro Glu Gly Leu Pro Arg Phe Asn Asn Asn Phe Met Ala Pro Gly Ser
 1 5 10 15
 Ala Ser Ser Pro Ser Pro Ser Phe Pro Ala Ser Arg Pro Trp Ala Ala
 20 25 30
 Val Gly Thr Met Ala Ala Ala Ala Ala Gly Pro Ser Pro Gly Ser
 35 40 45
 Gly Pro Gly Asp Ser Pro Glu Gly Pro Glu Gly Glu Ala Pro Glu Arg
 50 55 60
 Arg Arg Lys Ala His Gly Met Leu Lys Leu Tyr Tyr Gly Leu Ser Glu
 65 70 75 80

1457

Gly Glu Ala Ala Gly Arg Pro Ala Gly Pro Asp Pro Leu Asp Pro Thr
 85 90 95
 Asp Leu Asn Gly Ala His Phe Asp Pro Glu Val Tyr Leu Asp Lys Leu
 100 105 110
 Arg Arg Glu Cys Pro Leu Ala Gln Leu Met Asp Ser Glu Thr Asp Met
 115 120 125
 Val Arg Gln Ile Arg Ala Leu Asp Ser Asp Met Gln Thr Leu Val Tyr
 130 135 140
 Glu Asn Tyr Asn Lys Phe Ile Ser Ala Thr Asp Thr Ile Arg Lys Met
 145 150 155 160
 Lys Asn Asp Phe Arg Lys Met Glu Asp Glu Met Asp Arg Leu Ala Thr
 165 170 175
 Asn Met Ala Val Ile Thr Asp Phe Ser Ala Arg Ile Ser Ala Thr Leu
 180 185 190
 Gln Asp Arg His Glu Arg Ile Thr Lys Leu Ala Gly Val His Ala Leu
 195 200 205
 Leu Arg Lys Leu Gln Phe Leu Phe Glu Leu Pro Ser Arg Leu Thr Lys
 210 215 220
 Cys Val Glu Leu Gly Ala Tyr Gly Gln Ala Val Arg Tyr Gln Gly Arg
 225 230 235 240
 Ala Gln Ala Val Leu Gln Gln Tyr Gln His Leu Pro Ser Phe Arg Ala
 245 250 255
 Ile Gln Asp Asp Cys Gln Val Ile Thr Ala Arg Leu Ala Gln Gln Leu
 260 265 270
 Arg Gln Arg Phe Arg Glu Gly Gly Ser Gly Ala Pro Glu Gln Ala Glu
 275 280 285
 Cys Val Glu Leu Leu Leu Ala Leu Gly Glu Pro Ala Glu Glu Leu Cys
 290 295 300
 Glu Glu Phe Trp Arg Thr Pro Ala Ala Gly Trp Arg Arg Ser
 305 310 315

<210> 1394

<211> 1285

<212> PRT

1458

<213> Homo sapiens

<400> 1394

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Phe Ser Phe Pro Leu Ser Ser Glu Pro Phe Gln Gly Ser Tyr Lys Val
 1           5           10           15

Val Val Gln Lys Lys Ser Gly Gly Arg Thr Glu His Pro Phe Thr Val
          20           25           30

Glu Glu Phe Val Leu Pro Lys Phe Glu Val Gln Val Thr Val Pro Lys
          35           40           45

Ile Ile Thr Ile Leu Glu Glu Glu Met Asn Val Ser Val Cys Gly Leu
          50           55           60

Tyr Thr Tyr Gly Lys Pro Val Pro Gly His Val Thr Val Ser Ile Cys
          65           70           75           80

Arg Lys Tyr Ser Asp Ala Ser Asp Cys His Gly Glu Asp Ser Gln Ala
          85           90           95

Phe Cys Glu Lys Phe Ser Gly Gln Leu Asn Ser His Gly Cys Phe Tyr
          100          105          110

Gln Gln Val Lys Thr Lys Val Phe Gln Leu Lys Arg Lys Glu Tyr Glu
          115          120          125

Met Lys Leu His Thr Glu Ala Gln Ile Gln Glu Glu Gly Thr Val Val
          130          135          140

Glu Leu Thr Gly Arg Gln Ser Ser Glu Ile Thr Arg Thr Ile Thr Lys
          145          150          155          160

Leu Ser Phe Val Lys Val Asp Ser His Phe Arg Gln Gly Ile Pro Phe
          165          170          175

Phe Gly Gln Val Arg Leu Val Asp Gly Lys Gly Val Pro Ile Pro Asn
          180          185          190

Lys Val Ile Phe Ile Arg Gly Asn Glu Ala Asn Tyr Tyr Ser Asn Ala
          195          200          205

Thr Thr Asp Glu His Gly Leu Val Gln Phe Ser Ile Asn Thr Thr Asn
          210          215          220

Val Met Gly Thr Ser Leu Thr Val Arg Val Asn Tyr Lys Asp Arg Ser
          225          230          235          240

Pro Cys Tyr Gly Tyr Gln Trp Val Ser Glu Glu His Glu Glu Ala His
          245          250          255

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1459

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Thr | Ala | Tyr | Leu | Val | Phe | Ser | Pro | Ser | Lys | Ser | Phe | Val | His | Leu | 260 | 265 | 270 | |
| Glu | Pro | Met | Ser | His | Glu | Leu | Pro | Cys | Gly | His | Thr | Gln | Thr | Val | Gln | 275 | 280 | 285 | |
| Ala | His | Tyr | Ile | Leu | Asn | Gly | Gly | Thr | Leu | Leu | Gly | Leu | Lys | Lys | Leu | 290 | 295 | 300 | |
| Ser | Phe | Tyr | Tyr | Leu | Ile | Met | Ala | Lys | Gly | Gly | Ile | Val | Arg | Thr | Gly | 305 | 310 | 315 | 320 |
| Thr | His | Gly | Leu | Leu | Val | Lys | Gln | Glu | Asp | Met | Lys | Gly | His | Phe | Ser | 325 | 330 | 335 | |
| Ile | Ser | Ile | Pro | Val | Lys | Ser | Asp | Ile | Ala | Pro | Val | Ala | Arg | Leu | Leu | 340 | 345 | 350 | |
| Ile | Tyr | Ala | Val | Leu | Pro | Thr | Gly | Asp | Val | Ile | Gly | Asp | Ser | Ala | Lys | 355 | 360 | 365 | |
| Tyr | Asp | Val | Glu | Asn | Cys | Leu | Ala | Asn | Lys | Val | Asp | Leu | Ser | Phe | Ser | 370 | 375 | 380 | |
| Pro | Ser | Gln | Ser | Leu | Pro | Ala | Ser | His | Ala | His | Leu | Arg | Val | Thr | Ala | 385 | 390 | 395 | 400 |
| Ala | Pro | Gln | Ser | Val | Cys | Ala | Leu | Arg | Ala | Val | Asp | Gln | Ser | Val | Leu | 405 | 410 | 415 | |
| Leu | Met | Lys | Pro | Asp | Ala | Glu | Leu | Ser | Ala | Ser | Ser | Val | Tyr | Asn | Leu | 420 | 425 | 430 | |
| Leu | Pro | Glu | Lys | Asp | Leu | Thr | Gly | Phe | Pro | Gly | Pro | Leu | Asn | Asp | Gln | 435 | 440 | 445 | |
| Asp | Asp | Glu | Asp | Cys | Ile | Asn | Arg | His | Asn | Val | Tyr | Ile | Asn | Gly | Ile | 450 | 455 | 460 | |
| Thr | Tyr | Thr | Pro | Val | Ser | Ser | Thr | Asn | Glu | Lys | Asp | Met | Tyr | Ser | Phe | 465 | 470 | 475 | 480 |
| Leu | Glu | Asp | Met | Gly | Leu | Lys | Ala | Phe | Thr | Asn | Ser | Lys | Ile | Arg | Lys | 485 | 490 | 495 | |
| Pro | Lys | Met | Cys | Pro | Gln | Leu | Gln | Gln | Tyr | Glu | Met | His | Gly | Pro | Glu | 500 | 505 | 510 | |
| Gly | Leu | Arg | Val | Gly | Phe | Tyr | Glu | Ser | Asp | Val | Met | Gly | Arg | Gly | His | 515 | 520 | 525 | |

1460

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Leu | Val | His | Val | Glu | Glu | Pro | His | Thr | Glu | Thr | Val | Arg | Lys | 530 | 535 | 540 | |
| Tyr | Phe | Pro | Glu | Thr | Trp | Ile | Trp | Asp | Leu | Val | Val | Val | Asn | Ser | Ala | 545 | 550 | 555 | 560 |
| Gly | Val | Ala | Glu | Val | Gly | Val | Thr | Val | Pro | Asp | Thr | Ile | Thr | Glu | Trp | 565 | 570 | 575 | |
| Lys | Ala | Gly | Ala | Phe | Cys | Leu | Ser | Glu | Asp | Ala | Gly | Leu | Gly | Ile | Ser | 580 | 585 | 590 | |
| Ser | Thr | Ala | Ser | Leu | Arg | Ala | Phe | Gln | Pro | Phe | Phe | Val | Glu | Leu | Thr | 595 | 600 | 605 | |
| Met | Pro | Tyr | Ser | Val | Ile | Arg | Gly | Glu | Ala | Phe | Thr | Leu | Lys | Ala | Thr | 610 | 615 | 620 | |
| Val | Leu | Asn | Tyr | Leu | Pro | Lys | Cys | Ile | Arg | Val | Ser | Val | Gln | Leu | Glu | 625 | 630 | 635 | 640 |
| Ala | Ser | Pro | Ala | Phe | Leu | Ala | Val | Pro | Val | Glu | Lys | Glu | Gln | Ala | Pro | 645 | 650 | 655 | |
| His | Cys | Ile | Cys | Ala | Asn | Gly | Arg | Gln | Thr | Val | Ser | Trp | Ala | Val | Thr | 660 | 665 | 670 | |
| Pro | Lys | Ser | Leu | Gly | Asn | Val | Asn | Phe | Thr | Val | Ser | Ala | Glu | Ala | Leu | 675 | 680 | 685 | |
| Glu | Ser | Gln | Glu | Leu | Cys | Gly | Thr | Glu | Val | Pro | Ser | Val | Pro | Glu | His | 690 | 695 | 700 | |
| Gly | Arg | Lys | Asp | Thr | Val | Ile | Lys | Pro | Leu | Leu | Val | Glu | Pro | Glu | Gly | 705 | 710 | 715 | 720 |
| Leu | Glu | Lys | Glu | Thr | Thr | Phe | Asn | Ser | Leu | Leu | Cys | Pro | Ser | Gly | Gly | 725 | 730 | 735 | |
| Glu | Val | Ser | Glu | Glu | Leu | Ser | Leu | Lys | Leu | Pro | Pro | Asn | Val | Val | Glu | 740 | 745 | 750 | |
| Glu | Ser | Ala | Arg | Ala | Ser | Val | Ser | Val | Leu | Gly | Asp | Ile | Leu | Gly | Ser | 755 | 760 | 765 | |
| Ala | Met | Gln | Asn | Thr | Gln | Asn | Leu | Leu | Gln | Met | Pro | Tyr | Gly | Cys | Gly | 770 | 775 | 780 | |
| Glu | Gln | Asn | Met | Val | Leu | Phe | Ala | Pro | Asn | Ile | Tyr | Val | Leu | Asp | Tyr | 785 | 790 | 795 | 800 |

1461

Leu Asn Glu Thr Gln Gln Leu Thr Pro Glu Ile Lys Ser Lys Ala Ile
 805 810 815

Gly Tyr Leu Asn Thr Gly Tyr Gln Arg Gln Leu Asn Tyr Lys His Tyr
 820 825 830

Asp Gly Ser Tyr Ser Thr Phe Gly Glu Arg Tyr Gly Arg Asn Gln Gly
 835 840 845

Asn Thr Trp Leu Thr Ala Phe Val Leu Lys Thr Phe Ala Gln Ala Arg
 850 855 860

Ala Tyr Ile Phe Ile Asp Glu Ala His Ile Thr Gln Ala Leu Ile Trp
 865 870 875 880

Leu Ser Gln Arg Gln Lys Asp Asn Gly Cys Phe Arg Ser Ser Gly Ser
 885 890 895

Leu Leu Asn Asn Ala Ile Lys Gly Gly Val Glu Asp Glu Val Thr Leu
 900 905 910

Ser Ala Tyr Ile Thr Ile Ala Leu Leu Glu Ile Pro Leu Thr Val Thr
 915 920 925

His Pro Val Val Arg Asn Ala Leu Phe Cys Leu Glu Ser Ala Trp Lys
 930 935 940

Thr Ala Gln Glu Gly Asp His Gly Ser His Val Tyr Thr Lys Ala Leu
 945 950 955 960

Leu Ala Tyr Ala Phe Ala Leu Ala Gly Asn Gln Asp Lys Arg Lys Glu
 965 970 975

Val Leu Lys Ser Leu Asn Glu Glu Ala Val Lys Lys Asp Asn Ser Val
 980 985 990

His Trp Glu Arg Pro Gln Lys Pro Lys Ala Pro Val Gly His Phe Tyr
 995 1000 1005

Glu Pro Gln Ala Pro Ser Ala Glu Val Glu Met Thr Ser Tyr Val Leu
 1010 1015 1020

Leu Ala Tyr Leu Thr Ala Gln Pro Ala Pro Thr Ser Glu Asp Leu Thr
 1025 1030 1035 1040

Ser Ala Thr Asn Ile Val Lys Trp Ile Thr Lys Gln Gln Asn Ala Gln
 1045 1050 1055

Gly Gly Phe Ser Ser Thr Gln Asp Thr Val Val Ala Leu His Ala Leu
 1060 1065 1070

1462

Ser Lys Tyr Gly Ala Ala Thr Phe Thr Arg Thr Gly Lys Ala Ala Gln
 1075 1080 1085

Val Thr Ile Gln Ser Ser Gly Thr Phe Ser Ser Lys Phe Gln Val Asp
 1090 1095 1100

Asn Asn Asn Arg Leu Leu Leu Gln Gln Val Ser Leu Pro Glu Leu Pro
 1105 1110 1115 1120

Gly Glu Tyr Ser Met Lys Val Thr Gly Glu Gly Cys Val Tyr Leu Gln
 1125 1130 1135

Thr Ser Leu Lys Tyr Asn Ile Leu Pro Glu Lys Glu Glu Phe Pro Phe
 1140 1145 1150

Ala Leu Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala
 1155 1160 1165

His Thr Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg
 1170 1175 1180

Ser Ala Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe
 1185 1190 1195 1200

Ile Pro Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val
 1205 1210 1215

Ser Arg Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys
 1220 1225 1230

Val Ser Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val
 1235 1240 1245

Pro Val Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr
 1250 1255 1260

Glu Thr Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys
 1265 1270 1275 1280

Asp Leu Gly Asn Ala
 1285

<210> 1395

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1395

Ile Thr Lys Asn Ile Tyr Ser Asp Leu Lys Asp Leu Ser Ala Lys Asn

1463

1 5 10 15
 Gln Ser Ile Ser Cys Pro Ser Ile Ile Val His Ala Cys Leu Leu Leu
 20 25 30
 Phe Thr Cys Ser Ser Ala Gln Thr Val Ser Asn Leu Gly Thr Pro Phe
 35 40 45
 Gly Ala Asp Lys Tyr Ser Ser Ala Phe Ser Pro Gln Ile Tyr Asn Asp
 50 55 60
 Phe Asn Ile Pro Lys Asn Ile Gly Ile Ser Glu
 65 70 75

<210> 1396

<211> 920

<212> PRT

<213> Homo sapiens

<400> 1396

Arg Thr Arg Gly Ile His Gly Glu Met Arg Leu Phe Val Ser Asp Gly
 1 5 10 15
 Val Pro Gly Cys Leu Pro Val Leu Ala Ala Ala Gly Arg Ala Arg Gly
 20 25 30
 Arg Ala Glu Val Leu Ile Ser Thr Val Gly Pro Glu Asp Cys Val Val
 35 40 45
 Pro Phe Leu Thr Arg Pro Lys Val Pro Val Leu Gln Leu Asp Ser Gly
 50 55 60
 Asn Tyr Leu Phe Ser Thr Ser Ala Ile Cys Arg Tyr Phe Phe Leu Leu
 65 70 75 80
 Ser Gly Trp Glu Gln Asp Asp Leu Thr Asn Gln Trp Leu Glu Trp Glu
 85 90 95
 Ala Thr Glu Leu Gln Pro Ala Leu Ser Ala Ala Leu Tyr Tyr Leu Val
 100 105 110
 Val Gln Gly Lys Lys Gly Glu Asp Val Leu Gly Ser Val Arg Arg Ala
 115 120 125
 Leu Thr His Ile Asp His Ser Leu Ser Arg Gln Asn Cys Pro Phe Leu
 130 135 140
 Ala Gly Glu Thr Glu Ser Leu Ala Asp Ile Val Leu Trp Gly Ala Leu
 145 150 155 160

1464

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|-----|-----|-----|-----|
| Tyr | Pro | Leu | Leu | Gln | Asp | Pro | Ala | Tyr | Leu | Pro | Glu | Glu | Leu | Ser | Ala | | | 165 | 170 | 175 | |
| Leu | His | Ser | Trp | Phe | Gln | Thr | Leu | Ser | Thr | Gln | Glu | Pro | Cys | Gln | Arg | | | 180 | 185 | 190 | |
| Ala | Ala | Glu | Thr | Val | Leu | Lys | Gln | Gln | Gly | Val | Leu | Ala | Leu | Arg | Pro | | | 195 | 200 | 205 | |
| Tyr | Leu | Gln | Lys | Gln | Pro | Gln | Pro | Ser | Pro | Ala | Glu | Gly | Arg | Ala | Val | | | 210 | 215 | 220 | |
| Thr | Asn | Glu | Pro | Glu | Glu | Glu | Glu | Leu | Ala | Thr | Leu | Ser | Glu | Glu | Glu | | | 225 | 230 | 235 | 240 |
| Ile | Ala | Met | Ala | Val | Thr | Ala | Trp | Glu | Lys | Gly | Leu | Glu | Ser | Leu | Pro | | | 245 | 250 | 255 | |
| Pro | Leu | Arg | Pro | Gln | Gln | Asn | Pro | Val | Leu | Pro | Val | Ala | Gly | Glu | Arg | | | 260 | 265 | 270 | |
| Asn | Val | Leu | Ile | Thr | Ser | Ala | Leu | Pro | Tyr | Val | Asn | Asn | Val | Pro | His | | | 275 | 280 | 285 | |
| Leu | Gly | Asn | Ile | Ile | Gly | Cys | Val | Leu | Ser | Ala | Asp | Val | Phe | Ala | Arg | | | 290 | 295 | 300 | |
| Tyr | Ser | Arg | Leu | Arg | Gln | Trp | Asn | Thr | Leu | Tyr | Leu | Cys | Gly | Thr | Asp | | | 305 | 310 | 315 | 320 |
| Glu | Tyr | Gly | Thr | Ala | Thr | Glu | Thr | Lys | Ala | Leu | Glu | Glu | Gly | Leu | Thr | | | 325 | 330 | 335 | |
| Pro | Gln | Glu | Ile | Cys | Asp | Lys | Tyr | His | Ile | Ile | His | Ala | Asp | Ile | Tyr | | | 340 | 345 | 350 | |
| Arg | Trp | Phe | Asn | Ile | Ser | Phe | Asp | Ile | Phe | Gly | Arg | Thr | Thr | Thr | Pro | | | 355 | 360 | 365 | |
| Gln | Gln | Thr | Lys | Ile | Thr | Gln | Asp | Ile | Phe | Gln | Gln | Leu | Leu | Lys | Arg | | | 370 | 375 | 380 | |
| Gly | Phe | Val | Leu | Gln | Asp | Thr | Val | Glu | Gln | Leu | Arg | Cys | Glu | His | Cys | | | 385 | 390 | 395 | 400 |
| Ala | Arg | Phe | Leu | Ala | Asp | Arg | Phe | Val | Glu | Gly | Val | Cys | Pro | Phe | Cys | | | 405 | 410 | 415 | |
| Gly | Tyr | Glu | Glu | Ala | Arg | Gly | Asp | Gln | Cys | Asp | Lys | Cys | Gly | Lys | Leu | | | 420 | 425 | 430 | |

1465

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asn | Ala | Val | Glu | Leu | Lys | Lys | Pro | Gln | Cys | Lys | Val | Cys | Arg | Ser | 435 | 440 | 445 | |
| Cys | Pro | Val | Val | Gln | Ser | Ser | Gln | His | Leu | Phe | Leu | Asp | Leu | Pro | Lys | 450 | 455 | 460 | |
| Leu | Glu | Lys | Arg | Leu | Glu | Glu | Trp | Leu | Gly | Arg | Thr | Leu | Pro | Gly | Ser | 465 | 470 | 475 | 480 |
| Asp | Trp | Thr | Pro | Asn | Ala | Gln | Phe | Ile | Thr | Arg | Ser | Trp | Leu | Arg | Asp | 485 | 490 | 495 | |
| Gly | Leu | Lys | Pro | Arg | Cys | Ile | Thr | Arg | Asp | Leu | Lys | Trp | Gly | Thr | Pro | 500 | 505 | 510 | |
| Val | Pro | Leu | Glu | Gly | Phe | Glu | Asp | Lys | Val | Phe | Tyr | Val | Trp | Phe | Asp | 515 | 520 | 525 | |
| Ala | Thr | Ile | Gly | Tyr | Leu | Ser | Ile | Thr | Ala | Asn | Tyr | Thr | Asp | Gln | Trp | 530 | 535 | 540 | |
| Glu | Arg | Trp | Trp | Lys | Asn | Pro | Glu | Gln | Val | Asp | Leu | Tyr | Gln | Phe | Met | 545 | 550 | 555 | 560 |
| Ala | Lys | Asp | Asn | Val | Pro | Phe | His | Ser | Leu | Val | Phe | Pro | Cys | Ser | Ala | 565 | 570 | 575 | |
| Leu | Gly | Ala | Glu | Asp | Asn | Tyr | Thr | Leu | Val | Ser | His | Leu | Ile | Ala | Thr | 580 | 585 | 590 | |
| Glu | Tyr | Leu | Asn | Tyr | Glu | Asp | Gly | Lys | Phe | Ser | Lys | Ser | Arg | Gly | Val | 595 | 600 | 605 | |
| Gly | Val | Phe | Gly | Asp | Met | Ala | Gln | Asp | Thr | Gly | Ile | Pro | Ala | Asp | Ile | 610 | 615 | 620 | |
| Trp | Arg | Phe | Tyr | Leu | Leu | Tyr | Ile | Arg | Pro | Glu | Gly | Gln | Asp | Ser | Ala | 625 | 630 | 635 | 640 |
| Phe | Ser | Trp | Thr | Asp | Leu | Leu | Leu | Lys | Asn | Asn | Ser | Glu | Leu | Leu | Asn | 645 | 650 | 655 | |
| Asn | Leu | Gly | Asn | Phe | Ile | Asn | Arg | Ala | Gly | Met | Phe | Val | Ser | Lys | Phe | 660 | 665 | 670 | |
| Phe | Gly | Gly | Tyr | Val | Pro | Glu | Met | Val | Leu | Thr | Pro | Asp | Asp | Gln | Arg | 675 | 680 | 685 | |
| Leu | Leu | Ala | His | Val | Thr | Leu | Glu | Leu | Gln | His | Tyr | His | Gln | Leu | Leu | 690 | 695 | 700 | |

1466

Glu Lys Val Arg Ile Arg Asp Ala Leu Arg Ser Ile Leu Thr Ile Ser
 705 710 715 720
 Arg His Gly Asn Gln Tyr Ile Gln Val Asn Glu Pro Trp Lys Arg Ile
 725 730 735
 Lys Gly Ser Glu Ala Asp Arg Gln Arg Ala Gly Thr Val Thr Gly Leu
 740 745 750
 Ala Val Asn Ile Ala Ala Leu Leu Ser Val Met Leu Gln Pro Tyr Met
 755 760 765
 Pro Thr Val Ser Ala Thr Ile Gln Ala Gln Leu Gln Leu Pro Pro Pro
 770 775 780
 Ala Cys Ser Ile Leu Leu Thr Asn Phe Leu Cys Thr Leu Pro Ala Gly
 785 790 795 800
 His Gln Ile Gly Thr Val Ser Pro Leu Phe Gln Lys Leu Glu Asn Asp
 805 810 815
 Gln Ile Glu Ser Leu Arg Gln Arg Phe Gly Gly Gly Gln Ala Lys Thr
 820 825 830
 Ser Pro Lys Pro Ala Val Val Glu Thr Val Thr Thr Ala Lys Pro Gln
 835 840 845
 Gln Ile Gln Ala Leu Met Asp Glu Val Thr Lys Gln Gly Asn Ile Val
 850 855 860
 Arg Glu Leu Lys Ala Gln Lys Ala Asp Lys Asn Glu Val Ala Ala Glu
 865 870 875 880
 Val Ala Lys Leu Leu Asp Leu Lys Lys Gln Leu Ala Val Ala Glu Gly
 885 890 895
 Asn Pro Leu Lys Pro Leu Lys Ala Arg Arg Lys Ser Lys Arg Pro Trp
 900 905 910
 Leu Ile Glu Ser His Phe Asn Arg
 915 920

<210> 1397

<211> 476

<212> PRT

<213> Homo sapiens

<220>

1467

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1397

Lys Met Ala Ala Leu Thr Thr Leu Phe Lys Tyr Ile Asp Glu Asn Gln
 1 5 10 15
 Asp Arg Tyr Ile Lys Lys Leu Ala Lys Trp Val Ala Ile Gln Ser Val
 20 25 30
 Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile Arg Arg Met Met Glu Val
 35 40 45
 Ala Ala Ala Asp Val Lys Gln Leu Gly Gly Ser Val Glu Leu Val Asp
 50 55 60
 Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser Glu Ile Pro Leu Pro Pro
 65 70 75 80
 Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro Gln Lys Lys Thr Val Cys
 85 90 95
 Ile Tyr Gly His Leu Asp Val Gln Pro Ala Ala Leu Glu Asp Gly Trp
 100 105 110
 Asp Ser Glu Pro Phe Thr Leu Val Glu Arg Asp Gly Lys Leu Xaa Gly
 115 120 125
 Arg Gly Ser Thr Asp Asp Lys Gly Pro Val Ala Gly Trp Ile Asn Ala
 130 135 140
 Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu Ile Pro Val Asn Val Arg
 145 150 155 160
 Phe Cys Leu Glu Gly Met Glu Glu Ser Gly Ser Glu Gly Leu Asp Glu
 165 170 175
 Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe Lys Asp Val Asp Tyr Val
 180 185 190
 Cys Ile Ser Asp Asn Tyr Trp Leu Gly Lys Lys Lys Pro Cys Ile Thr
 195 200 205
 Tyr Gly Leu Arg Gly Ile Cys Tyr Phe Phe Ile Glu Val Glu Cys Ser
 210 215 220
 Asn Lys Asp Leu His Ser Gly Val Tyr Gly Gly Ser Val His Glu Ala
 225 230 235 240
 Met Thr Asp Leu Ile Leu Leu Met Gly Ser Leu Val Asp Lys Arg Gly

1468

| | | |
|---|-----|-----|
| 245 | 250 | 255 |
| Asn Ile Leu Ile Pro Gly Ile Asn Glu Ala Val Ala Ala Val Thr Glu | | |
| 260 | 265 | 270 |
| Glu Glu His Lys Leu Tyr Asp Asp Ile Asp Phe Asp Ile Glu Glu Phe | | |
| 275 | 280 | 285 |
| Ala Lys Asp Val Gly Ala Gln Ile Leu Leu His Ser His Lys Lys Asp | | |
| 290 | 295 | 300 |
| Ile Leu Met His Arg Trp Arg Tyr Pro Ser Leu Ser Leu His Gly Ile | | |
| 305 | 310 | 315 |
| Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys Thr Val Ile Pro Arg Lys | | |
| 325 | 330 | 335 |
| Val Val Gly Lys Phe Ser Ile Arg Leu Val Pro Asn Met Thr Pro Glu | | |
| 340 | 345 | 350 |
| Val Val Gly Glu Gln Val Thr Ser Tyr Leu Thr Lys Lys Phe Ala Glu | | |
| 355 | 360 | 365 |
| Leu Arg Ser Pro Asn Glu Phe Lys Val Tyr Met Gly His Gly Gly Lys | | |
| 370 | 375 | 380 |
| Pro Trp Val Ser Asp Phe Ser His Pro His Tyr Leu Ala Gly Arg Arg | | |
| 385 | 390 | 395 |
| Ala Met Lys Thr Val Phe Gly Val Glu Pro Asp Leu Thr Arg Glu Gly | | |
| 405 | 410 | 415 |
| Gly Ser Ile Pro Val Thr Leu Thr Phe Gln Glu Ala Thr Gly Lys Asn | | |
| 420 | 425 | 430 |
| Val Met Leu Leu Pro Val Gly Ser Ala Asp Asp Gly Ala His Ser Gln | | |
| 435 | 440 | 445 |
| Asn Glu Lys Leu Asn Arg Tyr Asn Tyr Ile Glu Gly Thr Lys Met Leu | | |
| 450 | 455 | 460 |
| Ala Ala Tyr Leu Tyr Glu Val Ser Gln Leu Lys Asp | | |
| 465 | 470 | 475 |

<210> 1398

<211> 187

<212> PRT

<213> Homo sapiens

1469

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1398

```

Leu His Leu Xaa Pro Thr Ser Ile Ser Ser Ser Ser Ser Cys Ser Val
 1              5              10              15

Ser Ser Val Val Ser Gln Arg Leu Thr Glu Ser Pro Cys Ala Leu Val
          20              25              30

Ala Ser Gln Tyr Gly Trp Ser Gly Asn Met Glu Arg Ile Met Lys Ala
      35              40              45

Gln Ala Tyr Gln Thr Gly Lys Asp Ile Ser Thr Asn Tyr Tyr Ala Ser
      50              55              60

Gln Lys Lys Thr Phe Glu Ile Asn Pro Arg His Pro Leu Ile Arg Asp
      65              70              75              80

Met Leu Arg Arg Ile Lys Glu Asp Glu Asp Asp Lys Thr Val Leu Asp
          85              90              95

Leu Ala Val Val Leu Phe Glu Thr Ala Thr Leu Arg Ser Gly Tyr Leu
          100              105              110

Leu Pro Asp Thr Lys Ala Tyr Gly Asp Arg Ile Glu Arg Met Leu Arg
          115              120              125

Leu Ser Leu Asn Ile Asp Pro Asp Ala Lys Val Glu Glu Glu Pro Glu
          130              135              140

Glu Glu Pro Glu Glu Thr Ala Glu Asp Thr Thr Glu Asp Thr Glu Gln
          145              150              155              160

Asp Glu Asp Glu Glu Met Asp Val Gly Thr Asp Glu Glu Glu Glu Thr
          165              170              175

Ala Lys Glu Ser Thr Ala Glu Lys Asp Glu Leu
          180              185

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<210> 1399

<211> 376

<212> PRT

<213> Homo sapiens

<400> 1399

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Lys Ser Ser Thr Gly Val Ile Pro Asp Glu Ala Lys Ala Leu Ser Leu

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1470

| | | | |
|---|-----|-----|-----|
| 1 | 5 | 10 | 15 |
| Leu Ala Pro Ala Asn Ala Val Ala Gly Leu Leu Pro Gly Gly Gly Leu | 20 | 25 | 30 |
| Leu Pro Thr Pro Asn Pro Leu Thr Gln Ile Gly Ala Val Pro Leu Ala | 35 | 40 | 45 |
| Ala Leu Gly Ala Pro Thr Leu Asp Pro Ala Leu Ala Ala Leu Gly Leu | 50 | 55 | 60 |
| Pro Gly Ala Asn Leu Asn Ser Gln Ser Leu Ala Ala Asp Gln Leu Leu | 65 | 70 | 75 |
| Lys Leu Met Ser Thr Val Asp Pro Lys Leu Asn His Val Ala Ala Gly | 85 | 90 | 95 |
| Leu Val Ser Pro Ser Leu Lys Ser Asp Thr Ser Ser Lys Glu Ile Glu | 100 | 105 | 110 |
| Glu Ala Met Lys Arg Val Arg Glu Ala Gln Ser Leu Ile Ser Ala Ala | 115 | 120 | 125 |
| Ile Glu Pro Asp Lys Lys Glu Glu Lys Arg Arg His Ser Arg Ser Arg | 130 | 135 | 140 |
| Ser Arg Ser Arg Arg Arg Arg Thr Pro Ser Ser Ser Arg His Arg Arg | 145 | 150 | 155 |
| Ser Arg Ser Arg Ser Arg Arg Arg Ser His Ser Lys Ser Arg Ser Arg | 165 | 170 | 175 |
| Arg Arg Ser Lys Ser Pro Arg Arg Arg Arg Ser His Ser Arg Glu Arg | 180 | 185 | 190 |
| Gly Arg Arg Ser Arg Ser Thr Ser Lys Thr Arg Asp Lys Lys Lys Glu | 195 | 200 | 205 |
| Asp Lys Glu Lys Lys Arg Ser Lys Thr Pro Pro Lys Ser Tyr Ser Thr | 210 | 215 | 220 |
| Ala Arg Arg Ser Arg Ser Ala Ser Arg Glu Arg Arg Arg Arg Ser | 225 | 230 | 235 |
| Arg Ser Gly Thr Arg Ser Pro Lys Lys Pro Arg Ser Pro Lys Arg Lys | 245 | 250 | 255 |
| Leu Ser Arg Ser Pro Ser Pro Arg Arg His Lys Lys Glu Lys Lys Lys | 260 | 265 | 270 |
| Asp Lys Asp Lys Glu Arg Ser Arg Asp Glu Arg Glu Arg Ser Thr Ser | | | |

1471

275 280 285
 Lys Lys Lys Lys Ser Lys Asp Lys Glu Lys Asp Arg Glu Arg Lys Ser
 290 295 300
 Glu Ser Asp Lys Asp Val Lys Gln Val Thr Arg Asp Tyr Asp Glu Glu
 305 310 315 320
 Glu Gln Gly Tyr Asp Ser Glu Lys Glu Lys Lys Glu Glu Lys Lys Pro
 325 330 335
 Ile Glu Thr Gly Ser Pro Lys Thr Lys Glu Cys Ser Val Glu Lys Gly
 340 345 350
 Thr Gly Asp Ser Leu Arg Glu Ser Lys Val Asn Gly Asp Asp His His
 355 360 365
 Glu Glu Asp Met Asp Met Ser Asp
 370 375

<210> 1400

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1400

Thr Ala Gly Leu Thr Ser Arg Gly Trp Gly Ser Leu Pro Pro Ser Leu
 1 5 10 15
 Glu Thr Phe Leu Xaa Trp Leu Lys Ser Arg Lys Glu Asn Glu Cys Thr
 20 25 30
 Ser Arg Leu Ala Gln Ser Leu Ser Pro Ser Ser Ser Leu Phe Pro Ala
 35 40 45
 Gly Pro Ser Gly Leu Tyr Gly Pro Asp Gly Gly Leu Arg Lys Met Arg
 50 55 60
 Gly Leu Trp Phe Ser Gly Ile Pro Ala Gly Ala Thr Pro Ser Cys Leu
 65 70 75 80
 Gln Met Val His Val Pro Ile Pro Pro Ser Arg Pro Leu Leu Cys Leu
 85 90 95

1472

Leu Cys His Arg Asp Ser Gln Gln Arg Phe Phe Phe Val Leu Ala Val
100 105 110

<210> 1401
<211> 69
<212> PRT
<213> Homo sapiens

<400> 1401
Arg Arg Gln Val Gly Ala Ala Ala Val Ala Met Thr Arg Gly Asn Gln
1 5 10 15
Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val
20 25 30
Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln
35 40 45
Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys
50 55 60
Lys Glu Glu Pro Lys
65

<210> 1402
<211> 177
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (162)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (166)
<223> Xaa equals any of the naturally occurring L-amino acids

1473

<400> 1402

```

Arg Pro Pro Arg Arg Xaa Pro Met Asp Gly Pro Ala Ile Ile Thr Gln
 1             5             10             15

Val Thr Asn Pro Lys Glu Asp Glu Gly Arg Leu Pro Gly Ala Gly Glu
          20             25             30

Lys Ala Ser Gln Cys Asn Val Ser Leu Lys Lys Gln Arg Ser Arg Ser
          35             40             45

Ile Leu Ser Ser Phe Phe Cys Cys Phe Arg Asp Tyr Asn Val Glu Ala
          50             55             60

Pro Pro Pro Ser Ser Pro Ser Val Leu Pro Pro Leu Val Glu Glu Asn
          65             70             75             80

Gly Gly Leu Gln Lys Pro Pro Ala Lys Tyr Leu Leu Pro Glu Val Thr
          85             90             95

Val Leu Asp Tyr Gly Lys Lys Cys Val Val Ile Asp Leu Asp Glu Thr
          100            105            110

Leu Val His Ser Ser Phe Lys Pro Ile Ser Asn Ala Asp Phe Ile Val
          115            120            125

Pro Val Glu Ile Asp Gly Thr Ile His Gln Val Tyr Val Leu Lys Arg
          130            135            140

Pro His Val Asp Glu Phe Leu Gln Arg Met Gly Gln Leu Leu Asn Val
          145            150            155            160

Cys Xaa Leu Leu Pro Xaa Gly Gln Val Cys Arg Pro Val Ala Asp Leu
          165            170            175

Leu

```

<210> 1403

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1403

```

Lys His Ile Leu Ser Thr Phe Glu Thr Ser Val Leu Glu Gly Arg Leu
 1             5             10             15

His Lys Leu Ser Ser Pro Arg Leu Arg Arg Leu Gln Ser Gly Lys Leu
          20             25             30

```

1474

Phe Thr

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Pro | Cys | Ala | Glu | Gly | Trp | Met | Asp | Trp | Ala | Ala | Ser | Lys | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |

1475

Ser Gly Trp Thr Gln Ala Leu Pro Asp Met Val Val Ser His Leu Phe
 115 120 125
 Gly Lys Glu Glu Met Gln Ser Asn Val Glu Val Val His Thr Tyr Arg
 130 135 140
 Gln His Ile Val Asn Asp Met Asn Pro Gly Asn Leu His Leu Phe Ile
 145 150 155 160
 Asn Ala Tyr Asn Ser Arg Arg Asp Leu Glu Ile Glu Arg Pro Met Pro
 165 170 175
 Gly Thr His Thr Val Thr Leu Gln Cys Pro Ala Leu Leu Val Val Gly
 180 185 190
 Asp Ser Ser Pro Ala Val Asp Ala Val Val Glu Cys Asn Ser Lys Leu
 195 200 205
 Asp Pro Thr Lys Thr Thr Leu Leu Lys Met Ala Asp Cys Gly Gly Leu
 210 215 220
 Pro Gln Ile Ser Gln Pro Ala Lys Leu Ala Glu Ala Phe Lys Tyr Phe
 225 230 235 240
 Val Gln Gly Met Gly Tyr Met Pro Arg Leu Ala
 245 250

<210> 1405

<211> 127

<212> PRT

<213> Homo sapiens

<400> 1405

Phe Glu Gly Phe Tyr Ser Gly Arg Lys Asn Arg Thr Lys Val Tyr Val
 1 5 10 15
 Pro Ser Ser Val Val Leu Ile Asp Leu Phe Phe Leu Phe Glu Thr Lys
 20 25 30
 Val Val Ser Val Phe Trp Phe Ser Gly Asn Met Tyr Tyr Ile Val Leu
 35 40 45
 Lys Glu Cys Cys Pro Thr Asn Tyr Ser Ser Lys Gln Arg Ile Val Thr
 50 55 60
 Ile Asn Lys Val Ser Val Thr Leu Leu Pro Leu Ser His Asn Ile His
 65 70 75 80
 Cys Arg Ala Leu Cys Arg Ser Lys Asn Arg Ala Ala Gln Asn Leu Cys

1476

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 85 | | 90 | | 95 | | | | | | | | | | |
| Gly | Ser | Phe | Leu | Ser | Phe | Cys | Asn | Leu | Arg | His | Met | Phe | Gln | Arg | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ile | Phe | Val | Trp | Ser | Ser | Asp | Leu | Gly | Asp | His | Ser | His | Asn | |
| | | | 115 | | | | 120 | | | | | 125 | | | |

<210> 1406

<211> 230

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (169)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (192)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1477

<221> SITE

<222> (217)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (218)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1406

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Arg | Pro | Leu | Gln | Val | Pro | Arg | Ser | Ala | Gly | Glu | Ala | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Ser | Arg | Arg | Pro | Pro | Gly | Leu | Leu | Pro | His | Ala | Pro | Arg | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Gln | Leu | Glu | Glu | Arg | Arg | Arg | Asp | Pro | His | Pro | Gly | Met | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gln | Glu | Gly | Asp | Cys | Arg | Gly | Ser | Gln | Thr | Val | Ser | Leu | Thr | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Thr | Ala | Asp | Ser | Asp | Glu | Met | Ala | Pro | Glu | Ala | Pro | Gln | His | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Ile | Asp | Val | His | Ile | His | Gln | Glu | Xaa | Ala | Leu | Ala | Lys | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Thr | Cys | Cys | Ser | Ala | Leu | Arg | Pro | Arg | Ala | Thr | Gln | Ala | Arg | Xaa |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ser | Arg | Leu | Leu | Xaa | Ala | Ser | Trp | Val | Met | Gln | Ile | Val | Leu | Gly |
| | | 115 | | | | | | 120 | | | | 125 | | | |
| Ile | Leu | Ser | Ala | Val | Leu | Gly | Gly | Phe | Phe | Tyr | Ile | Arg | Asp | Tyr | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Val | Thr | Ser | Gly | Ala | Ala | Ser | Gly | Gln | Gly | Leu | Trp | Leu | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | Trp | Ser | Cys | Cys | Leu | His | Leu | Xaa | Glu | Thr | Gly | Trp | Tyr | Ile | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Pro | Ala | Glu | Asp | Ser | Ala | Asn | Ala | Gly | Lys | Leu | Ser | Xaa | Gln | Xaa |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ser | Xaa | Ala | Ser | Asn | Phe | Gly | Asn | Glu | Glu | Phe | Arg | Tyr | Gly | Leu | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Ile | Thr | Thr | Ser | Gly | Trp | Pro | Xaa | Xaa | Gln | Val | Arg | Val | Asp | Trp |
| | 210 | | | | | 215 | | | | | | 220 | | | |

1478

Asn Thr Ser Ser Pro Gln
225 230

<210> 1407
<211> 79
<212> PRT
<213> Homo sapiens

<400> 1407
Arg Gly His Phe Leu Leu Pro Asp Leu Asp Ile Pro Ser Asn Pro Ser
1 5 10 15
Ser Tyr Ser Met Leu Lys Glu Lys Tyr Ser Gln Met His Tyr Val Asn
20 25 30
Gly Glu Lys Lys His Ser Ile Val Glu Thr Pro Ile Leu Ala Asn Val
35 40 45
Phe Trp Ser Val Phe His Phe Thr Val Tyr Ile Pro Ala Leu Lys Thr
50 55 60
Gln Gly Gln Val Leu Thr Lys Glu Val Cys Ser His Ser Lys Tyr
65 70 75

<210> 1408
<211> 289
<212> PRT
<213> Homo sapiens

<400> 1408
Val Arg Pro Pro Ser His Val Thr Ala Asp Ser Gly Arg Ser Pro Leu
1 5 10 15
Ser Leu Thr Tyr Leu Pro Leu Gln Glu Pro Gly Asp Met Ala Ala Ala
20 25 30
Val Pro Arg Ala Ala Phe Leu Ser Pro Leu Leu Pro Leu Leu Gly
35 40 45
Phe Leu Leu Leu Ser Ala Pro His Gly Gly Ser Gly Leu His Thr Lys
50 55 60
Gly Ala Leu Pro Leu Asp Thr Val Thr Phe Tyr Lys Val Ile Pro Lys
65 70 75 80
Ser Lys Phe Val Leu Val Lys Phe Asp Thr Gln Tyr Pro Tyr Gly Glu

1479

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 85 | | | | | 90 | | | | | 95 | | | | | | |
| Lys | Gln | Asp | Glu | Phe | Lys | Arg | Leu | Ala | Glu | Asn | Ser | Ala | Ser | Ser | Asp | |
| 100 | | | | | 105 | | | | | 110 | | | | | | |
| Asp | Leu | Leu | Val | Ala | Glu | Val | Gly | Ile | Ser | Asp | Tyr | Gly | Asp | Lys | Leu | |
| 115 | | | | | 120 | | | | | 125 | | | | | | |
| Asn | Met | Glu | Leu | Ser | Glu | Lys | Tyr | Lys | Leu | Asp | Lys | Glu | Ser | Tyr | Pro | |
| 130 | | | | | 135 | | | | | 140 | | | | | | |
| Val | Phe | Tyr | Leu | Phe | Arg | Asp | Gly | Asp | Phe | Glu | Asn | Pro | Val | Pro | Tyr | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Thr | Gly | Ala | Val | Lys | Val | Gly | Ala | Ile | Gln | Arg | Trp | Leu | Lys | Gly | Gln | |
| 165 | | | | | 170 | | | | | 175 | | | | | | |
| Gly | Val | Tyr | Leu | Gly | Met | Pro | Gly | Cys | Leu | Pro | Val | Tyr | Asp | Ala | Leu | |
| 180 | | | | | 185 | | | | | 190 | | | | | | |
| Ala | Gly | Glu | Phe | Ile | Arg | Ala | Ser | Gly | Val | Glu | Ala | Arg | Gln | Ala | Leu | |
| 195 | | | | | 200 | | | | | 205 | | | | | | |
| Leu | Lys | Gln | Gly | Gln | Asp | Asn | Leu | Ser | Ser | Val | Lys | Glu | Thr | Gln | Lys | |
| 210 | | | | | 215 | | | | | 220 | | | | | | |
| Lys | Trp | Ala | Glu | Gln | Tyr | Leu | Lys | Ile | Met | Gly | Lys | Ile | Leu | Asp | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Gly | Glu | Asp | Phe | Pro | Ala | Ser | Glu | Met | Thr | Arg | Ile | Ala | Arg | Leu | Ile | |
| 245 | | | | | 250 | | | | | 255 | | | | | | |
| Glu | Lys | Asn | Lys | Met | Ser | Asp | Gly | Lys | Lys | Glu | Glu | Leu | Gln | Lys | Ser | |
| 260 | | | | | 265 | | | | | 270 | | | | | | |
| Leu | Asn | Ile | Leu | Thr | Ala | Phe | Gln | Lys | Lys | Gly | Ala | Glu | Lys | Glu | Glu | |
| 275 | | | | | 280 | | | | | 285 | | | | | | |

Leu

<210> 1409

<211> 488

<212> PRT

<213> Homo sapiens

<400> 1409

Pro Ala Ser Ala Gly Thr Val Ser Glu Gly Pro Pro Gly Thr Asp Gly
1 5 10 15

1480

Ser Ala Gly Arg Gly Gly Thr Ala Phe Ala Met Ala Ala Thr Val Asn
 20 25 30
 Leu Glu Leu Asp Pro Ile Phe Leu Lys Ala Leu Gly Phe Leu His Ser
 35 40 45
 Lys Ser Lys Asp Ser Ala Glu Lys Leu Lys Ala Leu Leu Asp Glu Ser
 50 55 60
 Leu Ala Arg Gly Ile Asp Ser Ser Tyr Arg Pro Ser Gln Lys Asp Val
 65 70 75 80
 Glu Pro Pro Lys Ile Ser Ser Thr Lys Asn Ile Ser Ile Lys Gln Glu
 85 90 95
 Pro Lys Ile Ser Ser Ser Leu Pro Ser Gly Asn Asn Asn Gly Lys Val
 100 105 110
 Leu Thr Thr Glu Lys Val Lys Lys Glu Ala Glu Lys Arg Pro Ala Asp
 115 120 125
 Lys Met Lys Ser Asp Ile Thr Glu Gly Val Asp Ile Pro Lys Lys Pro
 130 135 140
 Arg Leu Glu Lys Pro Glu Thr Gln Ser Ser Pro Ile Thr Val Gln Ser
 145 150 155 160
 Ser Lys Asp Leu Pro Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser
 165 170 175
 Ala Asp Asp Phe Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg
 180 185 190
 Gln Met Met Val Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys
 195 200 205
 His Asn Leu Tyr His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys
 210 215 220
 Glu Ala Asn Asp Pro Arg Leu Val Trp Tyr Cys Ala Arg Cys Thr Arg
 225 230 235 240
 Gln Met Lys Arg Met Ala Gln Lys Thr Gln Lys Pro Pro Gln Lys Pro
 245 250 255
 Ala Pro Ala Val Val Ser Val Thr Pro Ala Val Lys Asp Pro Leu Val
 260 265 270
 Lys Lys Pro Glu Thr Lys Leu Lys Gln Glu Thr Thr Phe Leu Ala Phe
 275 280 285

1481

Lys Arg Thr Glu Val Lys Thr Ser Thr Val Ile Ser Gly Asn Ser Ser
 290 295 300
 Ser Ala Ser Val Ser Ser Ser Val Thr Ser Gly Leu Thr Gly Trp Ala
 305 310 315 320
 Ala Phe Ala Ala Lys Thr Ser Ser Ala Gly Pro Ser Thr Ala Lys Leu
 325 330 335
 Ser Ser Thr Thr Gln Asn Asn Thr Gly Lys Pro Ala Thr Ser Ser Ala
 340 345 350
 Asn Gln Lys Pro Val Gly Leu Thr Gly Leu Ala Thr Ser Ser Lys Gly
 355 360 365
 Gly Ile Gly Ser Lys Ile Gly Ser Asn Asn Ser Thr Thr Pro Thr Val
 370 375 380
 Pro Leu Lys Pro Pro Pro Pro Leu Thr Leu Gly Lys Thr Gly Leu Ser
 385 390 395 400
 Arg Ser Val Ser Cys Asp Asn Val Ser Lys Val Gly Leu Pro Ser Pro
 405 410 415
 Ser Ser Leu Val Pro Gly Ser Ser Ser Gln Leu Ser Gly Asn Gly Asn
 420 425 430
 Ser Gly Thr Ser Gly Pro Ser Gly Ser Thr Thr Ser Lys Thr Thr Ser
 435 440 445
 Glu Ser Ser Ser Ser Pro Ser Ala Ser Leu Lys Gly Pro Thr Ser Gln
 450 455 460
 Glu Ser Gln Leu Asn Ala Met Lys Arg Leu Gln Met Val Lys Lys Lys
 465 470 475 480
 Ala Ala Gln Lys Lys Leu Lys Lys
 485

<210> 1410

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

1482

<400> 1410

His Tyr Gly Leu Lys Leu Ala Val Lys Met Pro Asn Thr Val Val Pro
 1 5 10 15

Trp Asn Pro Val Tyr Ser Cys Ala Lys Gln Asn Cys Lys Ile Val Lys
 20 25 30

Met Ser Tyr Gln Val Ile Arg Arg Leu Gln Arg His His Leu Phe Phe
 35 40 45

Ile Ser Phe Phe Xaa Leu Thr His Val Val Val Ile Phe Asn Thr Phe
 50 55 60

<210> 1411

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1411

Ala Ala Cys Leu Ala Leu Arg Ile Ala Ala Ala Met Ala Ser Gln Ser
 1 5 10 15

Gln Gly Ile Gln Gln Leu Leu Gln Ala Glu Lys Arg Ala Ala Glu Lys
 20 25 30

Val Ser Glu Ala Arg Lys Arg Lys Asn Arg Arg Leu Lys Gln Ala Lys
 35 40 45

Glu Glu Ala Gln Ala Glu Ile Glu Gln Tyr Arg Leu Gln Arg Glu Lys
 50 55 60

Glu Phe Lys Ala Lys Glu Ala Ala Ala Leu Gly Ser Arg Gly Ser Cys
 65 70 75 80

Ser Thr Glu Val Glu Lys Glu Thr Gln Glu Lys Met Thr Ile Leu Gln
 85 90 95

Thr Tyr Phe Arg Gln Asn Arg Asp Glu Val Leu Asp Asn Leu Leu Ala
 100 105 110

Phe Val Cys Asp Ile Arg Pro Glu Ile His Glu Asn Tyr Arg Ile Asn
 115 120 125

Gly

1483

<210> 1412

<211> 177

<212> PRT

<213> Homo sapiens

<400> 1412

```

Val Thr Val Pro Ser Ser Ser Ala Ala Gly Thr Leu Phe Gln Gly Leu
  1             5             10             15

Cys Gly Ala Pro Asp Ala Pro His Pro Leu Ser Lys Ile Pro Gly Gly
      20             25             30

Arg Gly Gly Gly Arg Asp Pro Ser Leu Ser Ala Leu Ile Tyr Lys Asp
      35             40             45

Glu Lys Leu Thr Val Thr Gln Asp Leu Pro Val Asn Asp Gly Lys Pro
      50             55             60

His Ile Val His Phe Gln Tyr Glu Val Thr Glu Val Lys Val Ser Ser
      65             70             75             80

Trp Asp Ala Val Leu Ser Ser Gln Ser Leu Phe Val Glu Ile Pro Asp
      85             90             95

Gly Leu Leu Ala Asp Gly Ser Lys Glu Gly Leu Leu Ala Leu Leu Glu
      100            105            110

Phe Ala Glu Glu Lys Met Lys Val Asn Tyr Val Phe Ile Cys Phe Arg
      115            120            125

Lys Gly Arg Glu Asp Arg Ala Pro Leu Leu Lys Thr Phe Ser Phe Leu
      130            135            140

Gly Phe Glu Ile Val Arg Pro Gly His Pro Cys Val Pro Ser Arg Pro
      145            150            155            160

Asp Val Met Phe Met Val Tyr Pro Leu Asp Gln Asn Leu Ser Asp Glu
      165            170            175

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Asp

<210> 1413

<211> 112

<212> PRT

<213> Homo sapiens

1484

<400> 1413

```

Ser Gly Leu Arg Leu Ala Met Ser Thr Asn Asn Met Ser Asp Pro Arg
 1              5              10              15

Arg Pro Asn Lys Val Leu Arg Tyr Lys Pro Pro Pro Ser Glu Cys Asn
              20              25              30

Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn Leu Leu Gly Met
              35              40              45

Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys Trp Cys Ala Trp
 50              55              60

Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn Ser Arg Ser Ser
 65              70              75              80

Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu Ser Ile Ser Ala
              85              90              95

Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met Thr Pro Pro Trp
      100              105              110

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<210> 1414

<211> 186

<212> PRT

<213> Homo sapiens

<400> 1414

```

Cys Leu Gly Gly Arg Pro Arg Cys Val Leu Arg Leu Thr Ala Asn Leu
 1              5              10              15

Glu Gly Arg Arg Asp Ser Ala Thr His Ala Pro Pro His Pro Arg Leu
              20              25              30

Arg Val Lys Arg Ala Val Gly Pro Glu Ser Pro Pro Leu Trp Gln Trp
              35              40              45

Pro Pro Leu Tyr Ser Ile Leu Pro Ser Gly Arg Ser Ala Val Asn Lys
              50              55              60

Arg Trp Ala Pro Gln Ser Thr Cys Pro Pro Thr Ala Leu Ala Val Leu
 65              70              75              80

Gly Ser Ser Leu Gln Phe Thr Gly Asn Lys Pro Glu Ser Ala Arg Thr
              85              90              95

```

1485

Arg Gly Cys Ser Pro Gly Ser Ala Arg Pro Pro Leu Ser Pro Ala Thr
 100 105 110
 Gly Trp Arg Cys Arg Ala Arg Ala Ala Ala Ser Arg Arg Phe Pro Gly
 115 120 125
 Ala Pro Gly Pro Glu Glu Arg Ser Pro Gln Ser Lys Gly Gly Asn Thr
 130 135 140
 Cys Leu Arg Cys Lys Glu Ile Leu Phe Gln Ser Ile Pro Val Val Gln
 145 150 155 160
 Thr Asp Thr Val Pro Asn Glu Arg Ser Asp Val Phe Ser Ser Pro Phe
 165 170 175
 Leu Ile Cys Phe Leu Thr Gly Leu Arg Phe
 180 185

<210> 1415

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1415

Thr Lys Thr Thr Leu Phe Leu Glu Arg Pro Leu Phe Lys Lys Glu Ser
 1 5 10 15
 Ile Thr Pro Thr Val Glu Leu Asn Ala Leu Cys Met Lys Leu Gly Lys
 20 25 30
 Lys Pro Met Tyr Lys Pro Val Asp Pro Tyr Ser Arg Met Xaa Ser Thr
 35 40 45
 Tyr Asn Tyr Asn Met Arg Gly Gly Ala Tyr Pro Pro Arg Tyr Phe Tyr
 50 55 60
 Pro Phe Pro Xaa Pro Pro Leu Leu Tyr Gln Val Glu Leu Ser Val Gly
 65 70 75 80

1486

Gly Gln Gln Phe Asn Gly Lys Gly Lys Thr Arg Gln Ala Ala Lys His
 85 90 95

Asp Ala Ala Ala Lys Ala Val Glu Asp Pro Ala Glu
 100 105

<210> 1416

<211> 621

<212> PRT

<213> Homo sapiens

<400> 1416

Ala Gly His Arg Ala Gly Val Cys Ser Leu Ser Ala Thr Arg Leu Leu
 1 5 10 15

Leu Pro Lys Asp Arg Gly Val Gly Arg Arg Gln Thr Met Trp Thr Leu
 20 25 30

Val Ser Trp Val Ala Leu Thr Ala Gly Leu Val Ala Gly Thr Arg Cys
 35 40 45

Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu Asp Pro Gly Gly
 50 55 60

Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys Trp Pro Thr Thr
 65 70 75 80

Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser
 85 90 95

Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys
 100 105 110

Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His His Cys Cys Pro
 115 120 125

Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys Phe Gln Arg Ser
 130 135 140

Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu
 145 150 155 160

Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp Gly Ser Trp Gly
 165 170 175

Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg Val His Cys
 180 185 190

1487

Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr Arg Cys Ile Thr
 195 200 205

Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg Thr
 210 215 220

Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys Pro Asp Ala Arg
 225 230 235 240

Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu Pro Ser Gly Lys
 245 250 255

Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys Ser Asp His Leu
 260 265 270

His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln Ser Lys Cys
 275 280 285

Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala
 290 295 300

His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp
 305 310 315 320

Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro
 325 330 335

Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala
 340 345 350

Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu Gln Gly Pro His
 355 360 365

Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu Ser Leu Pro Asp
 370 375 380

Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn Val Ser Ser Cys
 385 390 395 400

Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly Glu Trp Gly Cys
 405 410 415

Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His Gln His Cys Cys
 420 425 430

Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys Gln Arg Gly Ser
 435 440 445

Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg Ala Ser Leu
 450 455 460

1488

Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val
 465 470 475 480
 Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln
 485 490 495
 Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala
 500 505 510
 Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu Lys Glu Val Val
 515 520 525
 Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro His Val Gly Val
 530 535 540
 Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr
 545 550 555 560
 Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln
 565 570 575
 Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg
 580 585 590
 Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp
 595 600 605
 Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu Leu
 610 615 620

<210> 1417

<211> 340

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1417

Ser Ala His Ala Ser Glu Arg Ile Ala Xaa Ser Gly Cys Gly Ala Pro
 1 5 10 15

1489

Ala Ala Gly Ala Gly Pro Arg Xaa Arg Ser Leu Gly Ala Asp Pro Gly
 20 25 30

Arg Ala Ala Arg Arg His Glu Gly Gln Gly Gly Glu Gly Gly Arg Arg
 35 40 45

Thr Ala Gly Arg Trp Arg Arg Lys Pro Glu Lys Ser Pro Ser Ala Gln
 50 55 60

Glu Leu Lys Glu Gln Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro
 65 70 75 80

Glu Ala Ala Ala Cys Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val
 85 90 95

Ala Val Tyr Tyr Thr Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln
 100 105 110

His Glu Gln Ala Leu Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly
 115 120 125

Gln Ser Val Lys Ala His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met
 130 135 140

Glu Ser Tyr Asp Glu Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu
 145 150 155 160

Ala Lys Glu Gln Arg Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu
 165 170 175

Arg Ile Ala Lys Lys Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile
 180 185 190

His Gln Glu Ser Glu Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala
 195 200 205

Glu Arg Glu Arg Glu Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp
 210 215 220

Glu Asp Asp Ser His Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys
 225 230 235 240

His Asp Lys Tyr Met Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp
 245 250 255

Glu Lys Arg Lys Lys Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile
 260 265 270

Ser Phe Glu Leu Met Arg Glu Pro Cys Ile Thr Pro Ser Gly Ile Thr
 275 280 285

1490

Tyr Asp Arg Lys Asp Ile Glu Glu His Leu Gln Arg Val Gly His Phe
 290 295 300

Asp Pro Val Thr Arg Ser Pro Leu Thr Gln Glu Gln Leu Ile Pro Asn
 305 310 315 320

Leu Ala Met Lys Glu Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp
 325 330 335

Val Glu Asp Tyr
 340

<210> 1418

<211> 235

<212> PRT

<213> Homo sapiens

<400> 1418

Ser Pro Arg Pro Leu Arg Phe Cys Gly Gly Ala Arg Ala Arg Arg Pro
 1 5 10 15

Leu Ser Ala Val Ala Arg Pro Ala Arg Ser Ser Asp Pro Leu Arg Ser
 20 25 30

Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg Cys Gly Leu
 35 40 45

Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu Leu Ser Ala
 50 55 60

Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp Leu Gln Ser
 65 70 75 80

Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys Ser Gln Glu
 85 90 95

Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser Leu Met Glu
 100 105 110

Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys Gly Phe Ile
 115 120 125

Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu Cys Gly Pro
 130 135 140

Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu Ala Leu Ala
 145 150 155 160

Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val Lys Tyr Thr

1491

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 165 | | 170 | | 175 |
| Gln Thr Phe Thr Leu His Ala Asn Arg Ala Val Thr Tyr Ile Tyr Asn | | | | | |
| | 180 | | 185 | | 190 |
| Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu Ile Gly Cys | | | | | |
| | 195 | | 200 | | 205 |
| Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp Leu Leu Gly | | | | | |
| | 210 | | 215 | | 220 |
| Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala | | | | | |
| 225 | | 230 | | 235 | |

<210> 1419

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1419

| | | | | | |
|---|----|----|----|----|----|
| Arg Arg Gln Ala Leu Gln Glu Arg Cys Pro Phe Asn Pro Leu Ser Ala | | | | | |
| 1 | | 5 | | 10 | 15 |
| Leu Asp Arg Arg Cys Cys Val Lys Leu Leu Met Asp Ile Tyr Met Arg | | | | | |
| | 20 | | 25 | | 30 |
| Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Phe Leu Thr Gly | | | | | |
| | 35 | | 40 | | 45 |
| Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys Val Tyr | | | | | |
| | 50 | | 55 | | 60 |
| Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala Ala Pro | | | | | |
| 65 | | 70 | | 75 | 80 |
| His Ile Gln Ser Arg Ser | | | | | |
| | 85 | | | | |

<210> 1420

<211> 351

<212> PRT

<213> Homo sapiens

<400> 1420

| | | | | | |
|---|--|---|--|----|----|
| Thr Trp Cys Thr Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg | | | | | |
| 1 | | 5 | | 10 | 15 |

1492

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Thr Leu Pro Ser Arg Val Phe His Pro Ala Phe Thr Lys Ala Ser Pro
      20                      25                      30

Val Val Lys Asn Ser Ile Thr Lys Asn Gln Trp Leu Leu Thr Pro Ser
      35                      40                      45

Arg Glu Tyr Ala Thr Lys Thr Arg Ile Gly Ile Arg Arg Gly Arg Thr
      50                      55                      60

Gly Gln Glu Leu Lys Glu Ala Ala Leu Glu Pro Ser Met Glu Lys Ile
      65                      70                      75                      80

Phe Lys Ile Asp Gln Met Gly Arg Trp Phe Val Ala Gly Gly Ala Ala
      85                      90                      95

Val Gly Leu Gly Ala Leu Cys Tyr Tyr Gly Leu Gly Leu Ser Asn Glu
      100                      105                      110

Ile Gly Ala Ile Glu Lys Ala Val Ile Trp Pro Gln Tyr Val Lys Asp
      115                      120                      125

Arg Ile His Ser Thr Tyr Met Tyr Leu Ala Gly Ser Ile Gly Leu Thr
      130                      135                      140

Ala Leu Ser Ala Ile Ala Ile Ser Arg Thr Pro Val Leu Met Asn Phe
      145                      150                      155                      160

Met Met Arg Gly Ser Trp Val Thr Ile Gly Val Thr Phe Ala Ala Met
      165                      170                      175

Val Gly Ala Gly Met Leu Val Arg Ser Ile Pro Tyr Asp Gln Ser Pro
      180                      185                      190

Gly Pro Lys His Leu Ala Trp Leu Leu His Ser Gly Val Met Gly Ala
      195                      200                      205

Val Val Ala Pro Leu Thr Ile Leu Gly Gly Pro Leu Leu Ile Arg Ala
      210                      215                      220

Ala Trp Tyr Thr Ala Gly Ile Val Gly Gly Leu Ser Thr Val Ala Met
      225                      230                      235                      240

Cys Ala Pro Ser Glu Lys Phe Leu Asn Met Gly Ala Pro Leu Gly Val
      245                      250                      255

Gly Leu Gly Leu Val Phe Val Ser Ser Leu Gly Ser Met Phe Leu Pro
      260                      265                      270

Pro Thr Thr Val Ala Gly Ala Thr Leu Tyr Ser Val Ala Met Tyr Gly
      275                      280                      285

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1493

Gly Leu Val Leu Phe Ser Met Phe Leu Leu Tyr Asp Thr Gln Lys Val
 290 295 300

Ile Lys Arg Ala Glu Val Ser Pro Met Tyr Gly Val Gln Lys Tyr Asp
 305 310 315 320

Pro Ile Asn Ser Met Leu Ser Ile Tyr Met Asp Thr Leu Asn Ile Phe
 325 330 335

Met Arg Val Ala Thr Met Leu Ala Thr Gly Gly Asn Arg Lys Lys
 340 345 350

<210> 1421

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1421

Cys Gly Xaa Leu Leu Met Ala Gln Gly Leu Ser Ala Ser Ala Leu Glu
 1 5 10 15

Gly Leu Lys Thr Glu Glu Gly Ser Val Arg Gly Ala Leu Pro Ala Val
 20 25 30

Ser Ser Pro Pro Ala Pro Val Ser Pro Ser Ser Pro Thr Thr His Asn
 35 40 45

Gly Glu Leu Glu Pro Ser Phe Ser Pro Leu Leu Gly Glu Gly Lys Thr
 50 55 60

Pro Glu Thr Leu Leu Pro Gln Lys Cys Trp Gly Gln Gly Gly Pro Gly
 65 70 75 80

Arg

<210> 1422

<211> 484

<212> PRT

<213> Homo sapiens

<400> 1422

1494

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Cys | Arg | Ser | Thr | Leu | Val | Asp | Pro | Lys | Asn | Ser | Ala | Gln | Glu | Arg | 1 | 5 | 10 | 15 |
| Arg | Ala | Leu | Gly | Pro | Leu | Pro | Pro | Cys | Ser | Phe | Ala | Leu | Gln | Leu | Gly | 20 | 25 | 30 | |
| Met | Ala | Gly | Tyr | Leu | Arg | Val | Val | Arg | Ser | Leu | Cys | Arg | Ala | Ser | Gly | 35 | 40 | 45 | |
| Ser | Arg | Pro | Ala | Trp | Ala | Pro | Ala | Ala | Leu | Thr | Ala | Pro | Thr | Ser | Gln | 50 | 55 | 60 | |
| Glu | Gln | Pro | Arg | Arg | His | Tyr | Ala | Asp | Lys | Arg | Ile | Lys | Val | Ala | Lys | 65 | 70 | 75 | 80 |
| Pro | Val | Val | Glu | Met | Asp | Gly | Asp | Glu | Met | Thr | Arg | Ile | Ile | Trp | Gln | 85 | 90 | 95 | |
| Phe | Ile | Lys | Glu | Lys | Leu | Ile | Leu | Pro | His | Val | Asp | Ile | Gln | Leu | Lys | 100 | 105 | 110 | |
| Tyr | Phe | Asp | Leu | Gly | Leu | Pro | Asn | Arg | Asp | Gln | Thr | Asp | Asp | Gln | Val | 115 | 120 | 125 | |
| Thr | Ile | Asp | Ser | Ala | Leu | Ala | Thr | Gln | Lys | Tyr | Ser | Val | Ala | Val | Lys | 130 | 135 | 140 | |
| Cys | Ala | Thr | Ile | Thr | Pro | Asp | Glu | Ala | Arg | Val | Glu | Glu | Phe | Lys | Leu | 145 | 150 | 155 | 160 |
| Lys | Lys | Met | Trp | Lys | Ser | Pro | Asn | Gly | Thr | Ile | Arg | Asn | Ile | Leu | Gly | 165 | 170 | 175 | |
| Gly | Thr | Val | Phe | Arg | Glu | Pro | Ile | Ile | Cys | Lys | Asn | Ile | Pro | Arg | Leu | 180 | 185 | 190 | |
| Val | Pro | Gly | Trp | Thr | Lys | Pro | Ile | Thr | Ile | Gly | Arg | His | Ala | His | Gly | 195 | 200 | 205 | |
| Asp | Gln | Tyr | Lys | Ala | Thr | Asp | Phe | Val | Ala | Asp | Arg | Ala | Gly | Thr | Phe | 210 | 215 | 220 | |
| Lys | Met | Val | Phe | Thr | Pro | Lys | Asp | Gly | Ser | Gly | Val | Lys | Glu | Trp | Glu | 225 | 230 | 235 | 240 |
| Val | Tyr | Asn | Phe | Pro | Ala | Gly | Gly | Val | Gly | Met | Gly | Met | Tyr | Asn | Thr | 245 | 250 | 255 | |
| Asp | Glu | Ser | Ile | Ser | Gly | Phe | Ala | His | Ser | Cys | Phe | Gln | Tyr | Ala | Ile | 260 | 265 | 270 | |

1495

Gln Lys Lys Trp Pro Leu Tyr Met Ser Thr Lys Asn Thr Ile Leu Lys
 275 280 285
 Ala Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Ile Phe Asp Lys
 290 295 300
 His Tyr Lys Thr Asp Phe Asp Lys Asn Lys Ile Trp Tyr Glu His Arg
 305 310 315 320
 Leu Ile Asp Asp Met Val Ala Gln Val Leu Lys Ser Ser Gly Gly Phe
 325 330 335
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Ile Leu
 340 345 350
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Val Cys
 355 360 365
 Pro Asp Gly Lys Thr Ile Glu Ala Glu Ala Ala His Gly Thr Val Thr
 370 375 380
 Arg His Tyr Arg Glu His Gln Lys Gly Arg Pro Thr Ser Thr Asn Pro
 385 390 395 400
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Gly Lys
 405 410 415
 Leu Asp Gly Asn Gln Asp Leu Ile Arg Phe Ala Gln Met Leu Glu Lys
 420 425 430
 Val Cys Val Glu Thr Val Glu Ser Gly Ala Met Thr Lys Asp Leu Ala
 435 440 445
 Gly Cys Ile His Gly Leu Ser Asn Val Lys Leu Asn Glu His Phe Leu
 450 455 460
 Asn Thr Thr Asp Phe Leu Asp Thr Ile Lys Ser Asn Leu Asp Arg Ala
 465 470 475 480
 Leu Gly Arg Gln

<210> 1423

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1496

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1423

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Ile | Pro | Gly | Ser | Thr | His | Ala | Ser | Gly | Gly | Gly | Asp | Gly | Asp |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Met | Glu | Ser | Gly | Ala | Tyr | Gly | Ala | Ala | Lys | Ala | Gly | Gly | Ser | Phe | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Arg | Arg | Phe | Leu | Thr | Gln | Pro | Gln | Val | Val | Ala | Arg | Ala | Val | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Val | Phe | Ala | Leu | Ile | Val | Phe | Ser | Cys | Ile | Tyr | Gly | Glu | Gly | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Asn | Ala | His | Glu | Ser | Lys | Gln | Met | Tyr | Cys | Val | Phe | Asn | Arg | Asn |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |
| Glu | Asp | Ala | Cys | Arg | Tyr | Gly | Ser | Ala | Ile | Gly | Val | Leu | Ala | Phe | Leu |
| | | | | 85 | | | | | | 90 | | | | 95 | |
| Ala | Ser | Ala | Phe | Phe | Leu | Val | Val | Asp | Ala | Tyr | Phe | Pro | Gln | Ile | Ser |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Asn | Ala | Thr | Asp | Arg | Lys | Tyr | Leu | Val | Ile | Gly | Asp | Leu | Leu | Phe | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Leu | Trp | Thr | Phe | Leu | Trp | Phe | Val | Gly | Phe | Cys | Phe | Leu | Thr | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Trp | Ala | Val | Thr | Asn | Pro | Lys | Xaa | Val | Leu | Val | Gly | Ala | Asp | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Arg | Ala | Ala | Ile | Thr | Phe | Ser | Phe | Phe | Ser | Ile | Phe | Ser | Trp | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Leu | Ala | Ser | Leu | Ala | Tyr | Gln | Arg | Tyr | Lys | Ala | Gly | Val | Asp | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Ile | Gln | Asn | Tyr | Val | Asp | Pro | Thr | Pro | Asp | Pro | Asn | Thr | Ala | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Ser | Tyr | Pro | Gly | Ala | Ser | Val | Asp | Asn | Tyr | Gln | Gln | Pro | Pro | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Gln | Asn | Ala | Glu | Thr | Thr | Glu | Gly | Tyr | Gln | Pro | Pro | Pro | Val | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

1497

<210> 1424
 <211> 244
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (59)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (62)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (221)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1424
 Arg Val Arg Arg Gln Ser Ser Gly Asn Leu Thr Met Ala Trp Thr Pro
 1 5 10 15
 Leu Leu Leu Pro Leu Leu Thr Phe Cys Thr Val Ser Glu Ala Ser Tyr
 20 25 30
 Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ser Pro Gly Gln Thr Ala
 35 40 45
 Arg Ile Thr Cys Ser Gly Asp Ala Leu Pro Xaa Lys Tyr Xaa Tyr Trp
 50 55 60
 Tyr Gln Gln Lys Ser Gly Gln Ala Pro Val Leu Val Ile Tyr Glu Asp
 65 70 75 80
 Thr Arg Arg Pro Ser Ala Ile Pro Glu Arg Phe Ser Ala Ser Ser Ser
 85 90 95
 Gly Thr Met Ala Thr Leu Thr Ile Ser Gly Ala Gln Val Glu Asp Glu
 100 105 110
 Ala Asp Tyr Tyr Cys Tyr Ser Thr Asp Ser Ser Ser Tyr Tyr Arg Val
 115 120 125
 Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro Lys Ala Ala
 130 135 140

1498

Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn
145 150 155 160

Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val
165 170 175

Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu
180 185 190

Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser
195 200 205

Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Xaa Ser Tyr Ser
210 215 220

Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro
225 230 235 240

Thr Glu Cys Ser

<210> 1425

<211> 173

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (159)

1499

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1425

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Arg | Val | Gln | Thr | Arg | Gly | Ser | Ala | Asp | Pro | Ala | Gln | Leu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | His | Pro | Gly | Tyr | Lys | Arg | Thr | Ala | Ser | Ala | Thr | Leu | Ser | Asp | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Ala | Ala | Met | Gln | Pro | Ser | Ser | Leu | Leu | Pro | Leu | Ala | Leu | Cys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Ala | Ala | Pro | Ala | Ser | Ala | Leu | Val | Arg | Ile | Pro | Leu | His | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Thr | Ser | Ile | Arg | Arg | Thr | Met | Ser | Glu | Val | Gly | Gly | Ser | Val | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Leu | Ile | Ala | Lys | Gly | Pro | Val | Ser | Lys | Tyr | Ser | Gln | Ala | Val | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Val | Thr | Glu | Gly | Pro | Ile | Pro | Glu | Val | Leu | Lys | Asn | Tyr | Met | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gln | Xaa | Tyr | Gly | Glu | Ile | Gly | Ile | Gly | Thr | Pro | Pro | Gln | Cys | Phe |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Thr | Val | Val | Phe | Asp | Thr | Gly | Xaa | Xaa | Asn | Leu | Trp | Val | Pro | Ser | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Cys | Lys | Leu | Leu | Asp | Ile | Ala | Cys | Trp | Ile | His | His | Lys | Xaa | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Asp | Lys | Ser | Ser | Asn | Tyr | Val | Lys | Asn | Gly | Asn | Ser | | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 1426

<211> 351

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1426

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | His | Glu | Ile | Leu | Trp | Leu | Leu | Cys | Ser | His | Arg | Pro | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

1500

Gly Arg Pro Pro Thr His Asn Ala His Asn Trp Arg Leu Gly Gln Ala
 20 25 30
 Pro Ala Xaa Trp Tyr Asn Asp Thr Tyr Pro Leu Ser Pro Pro Gln Arg
 35 40 45
 Thr Pro Ala Gly Ile Arg Tyr Arg Ile Ala Val Ile Ala Asp Leu Asp
 50 55 60
 Thr Glu Ser Arg Ala Gln Glu Glu Asn Thr Trp Phe Ser Tyr Leu Lys
 65 70 75 80
 Lys Gly Tyr Leu Thr Leu Ser Asp Ser Gly Asp Lys Val Ala Val Glu
 85 90 95
 Trp Asp Lys Asp His Gly Val Leu Glu Ser His Leu Ala Glu Lys Gly
 100 105 110
 Arg Gly Met Glu Leu Ser Asp Leu Ile Val Phe Asn Gly Lys Leu Tyr
 115 120 125
 Ser Val Asp Asp Arg Thr Gly Val Val Tyr Gln Ile Glu Gly Ser Lys
 130 135 140
 Ala Val Pro Trp Val Ile Leu Ser Asp Gly Asp Gly Thr Val Glu Lys
 145 150 155 160
 Gly Phe Lys Ala Glu Trp Leu Ala Val Lys Asp Glu Arg Leu Tyr Val
 165 170 175
 Gly Gly Leu Gly Lys Glu Trp Thr Thr Thr Thr Gly Asp Val Val Asn
 180 185 190
 Glu Asn Pro Glu Trp Val Lys Val Val Gly Tyr Lys Gly Ser Val Asp
 195 200 205
 His Glu Asn Trp Val Ser Asn Tyr Asn Ala Leu Arg Ala Ala Ala Gly
 210 215 220
 Ile Gln Pro Pro Gly Tyr Leu Ile His Glu Ser Ala Cys Trp Ser Asp
 225 230 235 240
 Thr Leu Gln Arg Trp Phe Phe Leu Pro Arg Arg Ala Ser Gln Glu Arg
 245 250 255
 Tyr Ser Glu Lys Asp Asp Glu Arg Lys Gly Ala Asn Leu Leu Leu Ser
 260 265 270
 Ala Ser Pro Asp Phe Gly Asp Ile Ala Val Ser His Val Gly Ala Val
 275 280 285

1501

Val Pro Thr His Gly Phe Ser Ser Phe Lys Phe Ile Pro Asn Thr Asp
 290 295 300

Asp Gln Ile Ile Val Ala Leu Lys Ser Glu Glu Asp Ser Gly Arg Val
 305 310 315 320

Ala Ser Tyr Ile Met Ala Phe Thr Leu Asp Gly Arg Phe Leu Leu Pro
 325 330 335

Glu Thr Lys Ile Gly Ser Val Lys Tyr Glu Gly Ile Glu Phe Ile
 340 345 350

<210> 1427

<211> 510

<212> PRT

<213> Homo sapiens

<400> 1427

Glu Arg Ser Trp Phe Ala Gln Val Arg Arg Leu Gly Pro His Gly Ala
 1 5 10 15

Val Ala Arg Leu Arg Val Arg Gly Leu Pro Gly Ala Gly Arg Gly Leu
 20 25 30

Arg Leu Pro Ala Gly Ala Arg Ala Ala Arg Leu Gly Ala Ala Leu Ser
 35 40 45

Leu Glu Leu Ala Val Ser Gly Ala Arg Ala Cys Ala Pro Gly Thr Arg
 50 55 60

Leu Pro Arg Gly Pro Val Gly Gly Ser Trp Asp Ala Leu Ile Val Arg
 65 70 75 80

Pro Val Arg Arg Trp Arg Arg Val Ala Val Gly Val Asn Ala Cys Val
 85 90 95

Asp Val Val Leu Ser Gly Val Lys Leu Leu Gln Ala Leu Gly Leu Ser
 100 105 110

Pro Gly Asn Gly Lys Asp His Ser Ile Leu His Ser Arg Asn Asp Leu
 115 120 125

Glu Glu Ala Phe Ile His Phe Met Gly Lys Gly Ala Ala Ala Glu Arg
 130 135 140

Phe Phe Ser Asp Lys Glu Thr Phe His Asp Ile Ala Gln Val Ala Ser
 145 150 155 160

1502

Glu Phe Pro Gly Ala Gln His Tyr Val Gly Gly Asn Ala Ala Leu Ile
 165 170 175
 Gly Gln Lys Phe Ala Ala Asn Ser Asp Leu Lys Val Leu Leu Cys Gly
 180 185 190
 Pro Val Gly Pro Lys Leu His Glu Leu Leu Asp Asp Asn Val Phe Val
 195 200 205
 Pro Pro Glu Ser Leu Gln Glu Val Asp Glu Phe His Leu Ile Leu Glu
 210 215 220
 Tyr Gln Ala Gly Glu Glu Trp Gly Gln Leu Lys Ala Pro His Ala Asn
 225 230 235 240
 Arg Phe Ile Phe Ser His Asp Leu Ser Asn Gly Ala Met Asn Met Leu
 245 250 255
 Glu Val Phe Val Ser Ser Leu Glu Glu Phe Gln Pro Asp Leu Val Val
 260 265 270
 Leu Ser Gly Leu His Met Met Glu Gly Gln Ser Lys Glu Leu Gln Arg
 275 280 285
 Lys Arg Leu Leu Glu Val Val Thr Ser Ile Ser Asp Ile Pro Thr Gly
 290 295 300
 Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Arg Glu Leu Met
 305 310 315 320
 Ser Ser Ile Val His Gln Gln Val Phe Pro Ala Val Thr Ser Leu Gly
 325 330 335
 Leu Asn Glu Gln Glu Leu Leu Phe Leu Thr Gln Ser Ala Ser Gly Pro
 340 345 350
 His Ser Ser Leu Ser Ser Trp Asn Gly Val Pro Asp Val Gly Met Val
 355 360 365
 Ser Asp Ile Leu Phe Trp Ile Leu Lys Glu His Gly Arg Ser Lys Ser
 370 375 380
 Arg Ala Ser Asp Leu Thr Arg Ile His Phe His Thr Leu Val Tyr His
 385 390 395 400
 Ile Leu Ala Thr Val Asp Gly His Trp Ala Asn Gln Leu Ala Ala Val
 405 410 415
 Ala Ala Gly Ala Arg Val Ala Gly Thr Gln Ala Cys Ala Thr Glu Thr
 420 425 430

1503

Ile Asp Thr Ser Arg Val Ser Leu Arg Ala Pro Gln Glu Phe Met Thr
 435 440 445

Ser His Ser Glu Ala Gly Ser Arg Ile Val Leu Asn Pro Asn Lys Pro
 450 455 460

Val Val Glu Trp His Arg Glu Gly Ile Ser Phe His Phe Thr Pro Val
 465 470 475 480

Leu Val Cys Lys Asp Pro Ile Arg Thr Val Gly Leu Gly Asp Ala Ile
 485 490 495

Ser Ala Glu Gly Leu Phe Tyr Ser Glu Val His Pro His Tyr
 500 505 510

<210> 1428

<211> 316

<212> PRT

<213> Homo sapiens

<400> 1428

Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu
 1 5 10 15

Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro
 20 25 30

Ala Ala Arg Ala Pro Ser Pro Pro Pro Phe Glu Gly Ala Pro Gly
 35 40 45

Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu
 50 55 60

Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro
 65 70 75 80

Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro
 85 90 95

Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala
 100 105 110

Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr
 115 120 125

Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile
 130 135 140

Lys Asp Asp Val Ile Leu Asn Glu Pro Ser Ala Asp Ala Pro Ala Ala

1504

145 150 155 160
 Leu Tyr Gln Thr Ile Glu Glu Asn Ile Lys Ile Phe Glu Glu Glu Glu
 165 170 175
 Val Glu Phe Ile Ser Val Pro Val Pro Glu Phe Ala Asp Ser Asp Pro
 180 185 190
 Ala Asn Ile Val His Asp Phe Asn Lys Lys Leu Thr Ala Tyr Leu Asp
 195 200 205
 Leu Asn Leu Asp Lys Cys Tyr Val Ile Pro Leu Asn Thr Ser Ile Val
 210 215 220
 Met Pro Pro Arg Asn Leu Leu Glu Leu Leu Ile Asn Ile Lys Ala Gly
 225 230 235 240
 Thr Tyr Leu Pro Gln Ser Tyr Leu Ile His Glu His Met Val Ile Thr
 245 250 255
 Asp Arg Ile Glu Asn Ile Asp His Leu Gly Phe Phe Ile Tyr Arg Leu
 260 265 270
 Cys His Asp Lys Glu Thr Tyr Lys Leu Gln Arg Arg Glu Thr Ile Lys
 275 280 285
 Gly Ile Gln Lys Arg Glu Ala Ser Asn Cys Phe Ala Ile Arg His Phe
 290 295 300
 Glu Asn Lys Phe Ala Val Glu Thr Leu Ile Cys Ser
 305 310 315

<210> 1429

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1429

His Thr Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn Gln Ile Thr
 1 5 10 15
 Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys Phe Cys Leu
 20 25 30
 Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu Gly Arg Pro
 35 40 45
 Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro Val Ala Val
 50 55 60

1505

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Lys | Ser | Leu | Leu | Gly | Lys | Asp | Val | Leu | Phe | Leu | Lys | Asp | Cys | 65 | 70 | 75 | 80 |
| Val | Gly | Pro | Glu | Val | Glu | Lys | Ala | Cys | Ala | Asn | Pro | Ala | Ala | Gly | Ser | 85 | 90 | 95 | |
| Val | Ile | Leu | Leu | Glu | Asn | Leu | Arg | Phe | His | Val | Glu | Glu | Glu | Gly | Lys | 100 | 105 | 110 | |
| Gly | Lys | Asp | Ala | Ser | Gly | Asn | Lys | Val | Lys | Ala | Glu | Pro | Ala | Lys | Ile | 115 | 120 | 125 | |
| Glu | Ala | Phe | Arg | Ala | Ser | Leu | Ser | Lys | Leu | Gly | Asp | Val | Tyr | Val | Asn | 130 | 135 | 140 | |
| Asp | Ala | Phe | Gly | Thr | Ala | His | Arg | Ala | His | Ser | Ser | Met | Val | Gly | Val | 145 | 150 | 155 | 160 |
| Asn | Leu | Pro | Gln | Lys | Ala | Gly | Gly | Phe | Leu | Met | Lys | Lys | Glu | Leu | Asn | 165 | 170 | 175 | |
| Tyr | Phe | Ala | Lys | Ala | Leu | Glu | Ser | Pro | Glu | Arg | Pro | Phe | Leu | Ala | Ile | 180 | 185 | 190 | |
| Leu | Gly | Gly | Ala | Lys | Val | Ala | Asp | Lys | Ile | Gln | Leu | Ile | Asn | Asn | Met | 195 | 200 | 205 | |
| Leu | Asp | Lys | Val | Asn | Glu | Met | Ile | Ile | Gly | Gly | Gly | Met | Ala | Phe | Thr | 210 | 215 | 220 | |
| Phe | Leu | Lys | Val | Leu | Asn | Asn | Met | Glu | Ile | Gly | Thr | Ser | Leu | Phe | Asp | 225 | 230 | 235 | 240 |
| Glu | Glu | Gly | Ala | Lys | Ile | Val | Lys | Asp | Leu | Met | Ser | Lys | Ala | Glu | Lys | 245 | 250 | 255 | |
| Asn | Gly | Val | Lys | Ile | Thr | Leu | Pro | Val | Asp | Phe | Val | Thr | Ala | Asp | Lys | 260 | 265 | 270 | |
| Phe | Asp | Glu | Asn | Ala | Lys | Thr | Gly | Gln | Ala | Thr | Val | Ala | Ser | Gly | Ile | 275 | 280 | 285 | |
| Pro | Ala | Gly | Trp | Met | Gly | Leu | Asp | Cys | Gly | Pro | Glu | Ser | Ser | Lys | Lys | 290 | 295 | 300 | |
| Tyr | Ala | Glu | Ala | Val | Thr | Arg | Ala | Lys | Gln | Ile | Val | Trp | Asn | Gly | Pro | 305 | 310 | 315 | 320 |
| Val | Gly | Val | Phe | Glu | Trp | Glu | Ala | Phe | Ala | Arg | Gly | Thr | Lys | Ala | Leu | 325 | 330 | 335 | |

1506

Met Asp Glu Val Val Lys Ala Thr Ser Arg Gly Cys Ile Thr Ile Ile
 340 345 350

Gly Gly Gly Asp Thr Ala Thr Cys Cys Ala Lys Trp Asn Thr Glu Asp
 355 360 365

Lys Val Ser His Val Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu
 370 375 380

Glu Gly Lys Val Leu Pro Gly Val Asp Ala Leu Ser Asn Ile
 385 390 395

<210> 1430

<211> 249

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (245)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1430

Pro Ala Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe
 1 5 10 15

Gly Pro Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu
 20 25 30

Arg Val Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu
 35 40 45

Leu Leu Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg
 50 55 60

Ser Asp Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val
 65 70 75 80

Ser Val Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu
 85 90 95

Lys Lys Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser
 100 105 110

Pro Ile Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly
 115 120 125

Ile Ile Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu

1507

130 135 140
 Gly Pro Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu
 145 150 155 160
 Thr Ser Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp
 165 170 175
 Gly Val Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu
 180 185 190
 Gly Leu Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu
 195 200 205
 Asn Pro Trp Tyr Glu Ala Ser Leu Leu Pro Ile Tyr Ala Val Thr Val
 210 215 220
 Ser Met Gly Leu Trp Ala Phe Ile Thr Ala Gly Gly Ser Leu Arg Ser
 225 230 235 240
 Ile Gln Arg Ser Xaa Leu Cys Lys Asp
 245

<210> 1431
 <211> 271
 <212> PRT
 <213> Homo sapiens

<400> 1431
 Arg Pro Thr Arg Pro Val Met Ala Pro Arg Ser Leu Leu Leu Leu Leu
 1 5 10 15
 Ser Gly Ala Leu Ala Leu Thr Asp Thr Trp Ala Gly Ser His Ser Leu
 20 25 30
 Arg Tyr Phe Ser Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg
 35 40 45
 Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln Phe Leu Arg Phe Asp
 50 55 60
 Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg Glu Pro Trp Val Glu
 65 70 75 80
 Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr Gly Tyr Ala Lys Ala
 85 90 95
 Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn Leu Leu Arg Arg Tyr
 100 105 110

1508

Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln Gly Met Asn Gly Cys
 115 120 125

Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly Tyr His Gln His Ala
 130 135 140

Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu Asp Leu Arg Ser Trp
 145 150 155 160

Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln Arg Phe Tyr Glu Ala
 165 170 175

Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu Glu Gly Glu Cys Leu
 180 185 190

Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg
 195 200 205

Ala Asp Pro Pro Lys Ala His Val Ala His His Pro Ile Ser Asp His
 210 215 220

Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile
 225 230 235 240

Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln Thr Gln Asp Thr Glu
 245 250 255

Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Arg Ser Gly
 260 265 270

<210> 1432

<211> 455

<212> PRT

<213> Homo sapiens

<400> 1432

Ala His Ala Ser Gly Ala Pro Glu Gln Arg Pro Arg Pro Pro Arg Leu
 1 5 10 15

Leu Arg Arg Asp Leu Glu Arg Lys Thr Pro Ala Arg Arg Pro Ala Leu
 20 25 30

Ala Ser Leu Pro Thr Gly His Thr Ala Pro Pro Pro Arg Pro Arg Cys
 35 40 45

Ala Arg Pro Val Arg Cys Thr Pro Ala Cys Trp Arg Leu Arg Arg Arg
 50 55 60

1509

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Arg | Pro | Gly | Leu | Leu | Leu | Arg | Ala | Thr | Met | Ser | Ser | Arg | Ile | Ala | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Arg | Ala | Leu | Ala | Leu | Val | Val | Thr | Leu | Leu | His | Leu | Thr | Arg | Leu | Ala | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Ser | Thr | Cys | Pro | Ala | Ala | Cys | His | Cys | Pro | Leu | Glu | Ala | Pro | Lys | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Cys | Ala | Pro | Gly | Val | Gly | Leu | Val | Arg | Asp | Gly | Cys | Gly | Cys | Cys | Lys | |
| | | 115 | | | | | | 120 | | | | 125 | | | | |
| Val | Cys | Ala | Lys | Gln | Leu | Asn | Glu | Asp | Cys | Ser | Lys | Thr | Gln | Pro | Cys | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Asp | His | Thr | Lys | Gly | Leu | Glu | Cys | Asn | Phe | Gly | Ala | Ser | Ser | Thr | Ala | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | Lys | Gly | Ile | Cys | Arg | Ala | Gln | Ser | Glu | Gly | Arg | Pro | Cys | Glu | Tyr | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Asn | Ser | Arg | Ile | Tyr | Gln | Asn | Gly | Glu | Ser | Phe | Gln | Pro | Asn | Cys | Lys | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| His | Gln | Cys | Thr | Cys | Ile | Asp | Gly | Ala | Val | Gly | Cys | Ile | Pro | Leu | Cys | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Pro | Gln | Glu | Leu | Ser | Leu | Pro | Asn | Leu | Gly | Cys | Pro | Asn | Pro | Arg | Leu | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Val | Lys | Val | Thr | Gly | Gln | Cys | Cys | Glu | Glu | Trp | Val | Cys | Asp | Glu | Asp | |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | | |
| Ser | Ile | Lys | Asp | Pro | Met | Glu | Asp | Gln | Asp | Gly | Leu | Leu | Gly | Lys | Glu | |
| | | | 245 | | | | | 250 | | | | | | 255 | | |
| Leu | Gly | Phe | Asp | Ala | Ser | Glu | Val | Glu | Leu | Thr | Arg | Asn | Asn | Glu | Leu | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Ile | Ala | Val | Gly | Lys | Gly | Ser | Ser | Leu | Lys | Arg | Leu | Pro | Val | Phe | Gly | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Met | Glu | Pro | Arg | Ile | Leu | Tyr | Asn | Pro | Leu | Gln | Gly | Gln | Lys | Cys | Ile | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Val | Gln | Thr | Thr | Ser | Trp | Ser | Gln | Cys | Ser | Lys | Thr | Cys | Gly | Thr | Gly | |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | | |
| Ile | Ser | Thr | Arg | Val | Thr | Asn | Asp | Asn | Pro | Glu | Cys | Arg | Leu | Val | Lys | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |

1510

Glu Thr Arg Ile Cys Glu Val Arg Pro Cys Gly Gln Pro Val Tyr Ser
 340 345 350

Ser Leu Lys Lys Gly Lys Lys Cys Ser Lys Thr Lys Lys Ser Pro Glu
 355 360 365

Pro Val Arg Phe Thr Tyr Ala Gly Cys Leu Ser Val Lys Lys Tyr Arg
 370 375 380

Pro Lys Tyr Cys Gly Ser Cys Val Asp Gly Arg Cys Cys Thr Pro Gln
 385 390 395 400

Leu Thr Arg Thr Val Lys Met Arg Phe Arg Cys Glu Asp Gly Glu Thr
 405 410 415

Phe Ser Lys Asn Val Met Met Ile Gln Ser Cys Lys Cys Asn Tyr Asn
 420 425 430

Cys Pro His Ala Asn Glu Ala Ala Phe Pro Phe Tyr Arg Leu Phe Asn
 435 440 445

Asp Ile His Lys Phe Arg Asp
 450 455

<210> 1433

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1433

Thr Glu Gly Glu Thr Trp Arg Ser Asp Ser Glu Val Arg Leu Gln Leu
 1 5 10 15

Ala His His Leu Arg Pro Gly Pro Asp Glu Pro Pro Val Ala Ser Ala
 20 25 30

Gly Ala Ala Ala Ala Ser Arg Gly Ala Cys Gly Pro Ser His Ser Arg
 35 40 45

His Cys Leu Pro Ala Gly Leu Glu Pro Ser Glu Arg Pro Asn Pro Arg
 50 55 60

Pro Gly Arg Asp Leu Arg Gly Met Thr Ala Glu Pro Pro Lys Gly Gly
 65 70 75 80

Glu Phe Glu Gly Arg Gly Pro
 85

1511

<210> 1434

<211> 110

<212> PRT

<213> Homo sapiens

<400> 1434

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Val Trp Arg Ala Gly Ala Gly Met Ala Ser Leu Arg Ser Gln His Gly
 1             5             10             15

Pro Gly Ala Pro Glu Ser Leu Arg Lys Val Leu Met Pro Ser Ser Met
      20             25             30

Gly Leu Leu Leu Ile Leu Tyr Ala Arg Leu Pro Pro Ser Leu Val Gly
      35             40             45

Gln Ala Gly Arg Trp Ile Gly Trp Ala Gly Arg Ala Gly Gly Gln Ala
      50             55             60

Val Arg Gln Pro Ser Pro Thr Val Leu Ile Asp Gly Val Glu Cys Ser
      65             70             75             80

Asp Val Lys Phe Phe Gln Leu Ala Ala Gln Trp Ser Ser His Val Lys
      85             90             95

His Phe Pro Ile Cys Ile Phe Gly His Ser Lys Ala Thr Phe
      100             105             110

```

<210> 1435

<211> 103

<212> PRT

<213> Homo sapiens

<400> 1435

```

Gly Ser Gln Asp Ala Arg Arg Gly Ser Gly Leu Gly Val Ser Ser Phe
 1             5             10             15

Leu Arg Gly Ser Gly Gly Ser Gly Pro Leu Trp Val Gln His Gly Lys
      20             25             30

Arg Gly Arg Tyr Phe Ser Ser Trp Ala Phe Ile Lys Glu Lys Thr Met
      35             40             45

Leu Ala Gly Arg Gly Gly Ser Arg Leu Gln Ser Gln His Phe Gly Arg
      50             55             60

Pro Arg Arg Val Asp His Leu Arg Ser Gly Val Gln Asp Gln Pro Gly
      65             70             75             80

```

1512

Gln His Gly Glu Thr Pro Ser Leu Leu Lys Asn Thr Lys Ile Ser Gln
 85 90 95

Val Trp Trp Leu Thr Leu Met
 100

<210> 1436

<211> 413

<212> PRT

<213> Homo sapiens

<400> 1436

Asn Glu Cys Thr Gly Pro Glu Phe Arg Val Asp Pro Arg Val Ala Ser
 1 5 10 15

Ala Pro Arg Ala Gln Ser Leu Ala Phe Ala Asp Pro Pro Pro Val His
 20 25 30

Thr Arg Arg Gln Leu Thr Met Asp Asp Asp Ile Ala Ala Leu Val Val
 35 40 45

Asp Asn Gly Ser Gly Met Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala
 50 55 60

Pro Arg Ala Val Phe Pro Ser Ile Val Gly Arg Pro Arg His Gln Gly
 65 70 75 80

Val Met Val Gly Met Gly Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala
 85 90 95

Gln Ser Lys Arg Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly
 100 105 110

Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe
 115 120 125

Tyr Asn Glu Leu Arg Val Ala Pro Glu Glu His Pro Val Leu Leu Thr
 130 135 140

Glu Ala Pro Leu Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile
 145 150 155 160

Met Phe Glu Thr Phe Asn Thr Pro Ala Met Tyr Val Ala Ile Gln Ala
 165 170 175

Val Leu Ser Leu Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Met Asp
 180 185 190

Ser Gly Asp Gly Val Thr His Thr Val Pro Ile Tyr Glu Gly Tyr Ala

1513

| | | |
|---|-----|---------|
| 195 | 200 | 205 |
| Leu Pro His Ala Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr | | |
| 210 | 215 | 220 |
| Asp Tyr Leu Met Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr | | |
| 225 | 230 | 235 240 |
| Thr Ala Glu Arg Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr | | |
| | 245 | 250 255 |
| Val Ala Leu Asp Phe Glu Gln Glu Met Ala Thr Ala Ala Ser Ser Ser | | |
| | 260 | 265 270 |
| Ser Leu Glu Lys Ser Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile | | |
| | 275 | 280 285 |
| Gly Asn Glu Arg Phe Arg Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe | | |
| | 290 | 295 300 |
| Leu Gly Met Glu Ser Cys Gly Ile His Glu Thr Thr Phe Asn Ser Ile | | |
| 305 | 310 | 315 320 |
| Met Lys Cys Asp Val Asp Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val | | |
| | 325 | 330 335 |
| Leu Ser Gly Gly Thr Thr Met Tyr Pro Gly Ile Ala Asp Arg Met Gln | | |
| | 340 | 345 350 |
| Lys Glu Ile Thr Ala Leu Ala Pro Ser Thr Met Lys Ile Lys Ile Ile | | |
| | 355 | 360 365 |
| Ala Pro Pro Glu Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu | | |
| | 370 | 375 380 |
| Ala Ser Leu Ser Thr Phe Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr | | |
| 385 | 390 | 395 400 |
| Asp Glu Ser Gly Pro Ser Ile Val His Arg Lys Cys Phe | | |
| | 405 | 410 |

<210> 1437

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

1514

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1437

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Pro | Ser | Thr | Lys | Asp | Phe | Leu | Val | Gly | Val | Lys | Gly | Ser | Gly |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | His | Arg | Gly | Gly | Gly | Glu | Met | Ala | Phe | Ser | Xaa | Ser | Gln | Ala | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Ser | Pro | Ala | Val | Pro | Phe | Ser | Gly | Thr | Ile | Gln | Gly | Gly | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asp | Gly | Leu | Gln | Ile | Thr | Val | Asn | Gly | Thr | Val | Leu | Ser | Ser | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Ser | Gly | Asn | Asp | Ile | Ala | Phe | His | Phe | Asn | Pro | Arg | Phe | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Gly | Tyr | Val | Val | Cys | Thr | Ala | Gly | Arg | Thr | Glu | Ala | Gly | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Pro

<210> 1438

<211> 153

<212> PRT

<213> Homo sapiens

<400> 1438

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Pro | Leu | Arg | Cys | Gln | Pro | Gly | Thr | Arg | Thr | Gln | Pro | Arg | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Pro | Ala | Ala | Asn | Asp | Pro | Ser | Ala | Ala | Met | Ser | Ala | Ala | Gly | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Leu | Arg | Ala | Thr | Tyr | His | Arg | Leu | Leu | Asp | Lys | Val | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Pro | Glu | Lys | Leu | Arg | Pro | Leu | Tyr | Asn | His | Pro | Ala | Gly | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Val | Phe | Phe | Trp | Ala | Pro | Ile | Met | Lys | Trp | Gly | Leu | Val | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Leu | Ala | Asp | Met | Ala | Arg | Pro | Ala | Glu | Lys | Leu | Ser | Thr | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Ala | Val | Leu | Met | Ala | Thr | Gly | Phe | Ile | Trp | Ser | Arg | Tyr | Ser |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1515

| | | |
|---|-----|-----|
| 100 | 105 | 110 |
| Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe | | |
| 115 | 120 | 125 |
| Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn | | |
| 130 | 135 | 140 |
| Gln Glu Leu Lys Ala Lys Ala His Lys | | |
| 145 | 150 | |

<210> 1439

<211> 343

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (244)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (305)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (325)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (328)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (340)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1439

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ile | Gln | Arg | Ile | Arg | Ala | Arg | Gly | Lys | Thr | Asn | Leu | Arg | Arg | Thr |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Tyr | Leu | Val | Leu | Asp | Glu | Ala | Asp | Arg | Met | Leu | Asp | Met | Gly | Phe |
| | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Gln | Ile | Arg | Lys | Ile | Val | Asp | Gln | Ile | Arg | Pro | Asp | Arg | Gln |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1516

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| 35 | 40 | 45 | | | | | | | | | | | | | | | | | |
| Thr | Leu | Met | Trp | Ser | Ala | Thr | Trp | Pro | Lys | Glu | Val | Arg | Gln | Leu | Ala | | | | |
| 50 | | | | | | 55 | | | | | 60 | | | | | | | | |
| Glu | Asp | Phe | Leu | Lys | Asp | Tyr | Ile | His | Ile | Asn | Ile | Gly | Ala | Leu | Glu | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | | |
| Leu | Ser | Ala | Asn | His | Asn | Ile | Leu | Gln | Ile | Val | Asp | Val | Cys | His | Asp | | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | | |
| Val | Glu | Lys | Asp | Glu | Lys | Leu | Ile | Arg | Leu | Met | Glu | Glu | Ile | Met | Ser | | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | | |
| Glu | Lys | Glu | Asn | Lys | Thr | Ile | Val | Phe | Val | Glu | Thr | Lys | Arg | Arg | Cys | | | | |
| | | | 115 | | | | 120 | | | | | | 125 | | | | | | |
| Asp | Glu | Leu | Thr | Arg | Lys | Met | Arg | Arg | Asp | Gly | Trp | Pro | Ala | Met | Gly | | | | |
| | | | 130 | | | 135 | | | | | 140 | | | | | | | | |
| Ile | His | Gly | Asp | Lys | Ser | Gln | Gln | Glu | Arg | Asp | Trp | Val | Leu | Asn | Glu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |
| Phe | Lys | His | Gly | Lys | Ala | Pro | Ile | Leu | Ile | Ala | Thr | Asp | Val | Ala | Ser | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | |
| Arg | Gly | Leu | Asp | Val | Glu | Asp | Val | Lys | Phe | Val | Ile | Asn | Tyr | Asp | Tyr | | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | | |
| Pro | Asn | Ser | Ser | Glu | Asp | Tyr | Ile | His | Arg | Ile | Gly | Arg | Thr | Ala | Arg | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | | |
| Ser | Thr | Lys | Thr | Gly | Thr | Ala | Tyr | Thr | Phe | Phe | Thr | Pro | Asn | Asn | Ile | | | | |
| | | 210 | | | | 215 | | | | | | 220 | | | | | | | |
| Lys | Gln | Val | Ser | Asp | Leu | Ile | Ser | Val | Leu | Arg | Glu | Ala | Asn | Gln | Ala | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | | |
| Ile | Asn | Pro | Xaa | Leu | Leu | Gln | Leu | Val | Glu | Asp | Arg | Gly | Ser | Gly | Arg | | | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | |
| Ser | Arg | Gly | Arg | Gly | Gly | Met | Lys | Asp | Asp | Arg | Arg | Asp | Arg | Tyr | Ser | | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | | | |
| Ala | Gly | Lys | Arg | Gly | Gly | Phe | Asn | Thr | Phe | Arg | Asp | Arg | Glu | Asn | Tyr | | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | | | |
| Asp | Arg | Gly | Tyr | Ser | Ser | Leu | Leu | Lys | Arg | Asp | Phe | Gly | Ala | Lys | Thr | | | | |
| | | 290 | | | | 295 | | | | | 300 | | | | | | | | |
| Xaa | Asn | Gly | Gly | Tyr | Ser | Ala | Cys | Lys | Phe | Thr | Asn | Gly | Ser | Phe | Gly | | | | |

1517

```

305              310              315              320
Ser Asn Phe Gly Xaa Cys Trp Xaa Ser Gly Pro Val Leu Gly Leu Gly
              325              330              335

Ile Pro Thr Xaa Ala Leu Pro
              340

```

<210> 1440

$\langle 211 \rangle$ 122

<212> PRT

<213> Homo sapiens

<400> 1440

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Cys | Val | Ser | Ala | Arg | Arg | Ala | Leu | Ser | Gly | Leu | Glu | His | Gly | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Trp | Glu | Arg | Val | Trp | Glu | Lys | Met | Gly | Asn | Lys | Glu | Pro | Gly | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Gly | His | Arg | Ser | Asp | Ala | Asp | Pro | Ser | Arg | Phe | Ser | Pro | Val | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Pro | Ala | Val | Gln | Leu | Gly | Val | Trp | Arg | Glu | Glu | Gly | Arg | Gly | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Cys | Pro | Phe | Ser | Trp | Gly | Arg | Gly | Pro | Val | Ser | Ser | Thr | Trp | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Pro | Lys | Gly | Ser | Lys | Arg | Glu | Gly | Leu | Gly | Glu | Lys | Thr | Met | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Gly | Pro | Ala | Lys | Glu | Asn | Arg | Glu | Glu | Val | Ser | Gly | Leu | Ile | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Leu | Ser | Arg | Cys | Ser | Gly | Ser | Leu | Ile | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 1441

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1441

Gly His Arg His Thr Pro Pro His Leu Ala Asn Phe Tyr Tyr Phe Phe
1 5 10 15

1518

Cys Arg Asp Glu Val Ser Leu Cys Pro Gly Trp Ser Gln Thr Pro Val
 20 25 30
 Leu Lys Gln Ser Ser His Leu Gly Ser Leu Ser Ala Gly Ile Ile Gly
 35 40 45
 Met Ser His Arg Ala Arg Pro His Val Cys Met Leu Lys Val Leu Arg
 50 55 60
 Ile Pro Met Glu Asn Lys Phe Asp Phe Ala
 65 70

<210> 1442
 <211> 103
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (2)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (3)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1442
 Ala Xaa Xaa His Gln Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro
 1 5 10 15
 Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu
 20 25 30
 Phe Gly Thr Arg Glu Ala Glu Ala Gly Val Gln Trp Cys Asp Leu Gly
 35 40 45
 Ser Leu Gln Pro Leu Pro Pro Arg Phe Gln Gln Phe Ser Cys Leu Ser
 50 55 60
 Leu Pro Ser Gly Trp Asp Asp Arg Arg Leu Pro Ser Cys Leu Thr Ser
 65 70 75 80
 Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp
 85 90 95
 Ser Gln Thr Pro Asp Leu Arg
 100

<210> 1443
<211> 106
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids

1520

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1443

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Ala | Ala | Cys | Ala | Ala | Ala | Met | Ser | Leu | Val | Ile | Pro | Glu |
| 1 | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Phe | Gln | His | Ile | Leu | Arg | Val | Leu | Asn | Thr | Asn | Ile | Asp | Gly | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Ile | Ala | Phe | Ala | Ile | Thr | Ala | Ile | Lys | Gly | Val | Gly | Arg | Xaa |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ala | His | Val | Xaa | Leu | Arg | Lys | Xaa | Xaa | Ile | Asp | Leu | Thr | Xaa | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Glu | Leu | Thr | Xaa | Asp | Xaa | Val | Glu | Arg | Val | Ile | Thr | Ile | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asn | Xaa | Arg | Gln | Tyr | Lys | Ile | Pro | Asp | Trp | Phe | Leu | Asn | Arg | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Xaa | Xaa | Asp | Xaa | Ser | Thr | Ser | Ser |
| | | 100 | | | | | | 105 | |

<210> 1444

<211> 14

<212> PRT

<213> Homo sapiens

<400> 1444

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Trp | Pro | Lys | Trp | Ser | Gly | Trp | Pro | Leu | Ala | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | |

1521

<210> 1445
 <211> 126
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (119)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (123)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (124)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1445
 Phe Leu Arg Leu Val Leu Gly Leu Leu Ile Gly Arg Cys Leu Gln Glu
 1 5 10 15
 Met Leu Lys Leu Gly Thr Leu Pro Pro Thr Ser Lys Pro Gln Leu Leu
 20 25 30
 Cys Gln Met Val Ser Leu Lys Ile Ser Ala Cys Leu Thr Thr Lys Gly
 35 40 45
 Lys Tyr Val Val Phe Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys
 50 55 60
 Pro Thr Glu Ile Ile Ala Phe Ser Asp Arg Ala Glu Glu Phe Lys Lys
 65 70 75 80
 Leu Asn Cys Gln Val Ile Gly Ala Ser Val Asp Ser His Phe Cys His
 85 90 95
 Leu Ala Trp Val Asn Thr Pro Xaa Lys Gln Gly Gly Leu Gly Pro Met
 100 105 110
 Asn Ile Pro Leu Val Ser Xaa Pro Thr His Xaa Xaa Ser Gly
 115 120 125

1522

<210> 1446

<211> 97

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1446

Cys Asp Lys Glu Lys Asn Leu Leu His Val Thr Asp Thr Gly Val Gly
 1 5 10 15

Met Thr Arg Glu Glu Leu Val Lys Asn Leu Gly Thr Ile Ala Lys Ser
 20 25 30

Gly Thr Ser Glu Phe Leu Asn Lys Met Thr Glu Ala Gln Glu Asp Gly
 35 40 45

Gln Ser Thr Ser Asp Leu Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser
 50 55 60

Ala Phe Leu Val Ala Asp Lys Val Ile Val Thr Ser Lys His Asn Asn
 65 70 75 80

Asp Thr Gln His Ile Trp Glu Ser Asp Ser Asn Xaa Phe Ser Val Asn
 85 90 95

Cys

<210> 1447

<211> 47

<212> PRT

<213> Homo sapiens

<400> 1447

His Ser Arg His Arg Gly Val Phe Leu Thr Pro Leu Leu Ala Met Ser
 1 5 10 15

Ser His Lys Thr Phe Arg Ile Lys Arg Phe Leu Ala Lys Lys Gln Lys
 20 25 30

Gln Asn Arg Pro Ile Pro Gln Trp Ile Arg Met Lys Thr Gly Lys
 35 40 45

1523

<210> 1448
<211> 106
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (104)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1448
Val Phe Arg Val Glu Ala Trp Arg Thr Ser Gly Glu Thr Pro Ala Ile
1 5 10 15
Ser Pro Ser Lys Arg Ala Arg Pro Ala Glu Val Gly Gly Met Gln Leu
20 25 30
Arg Phe Ala Arg Leu Ser Glu His Ala Thr Ala Pro Thr Arg Gly Ser
35 40 45
Ala Arg Ala Ala Gly Tyr Asp Leu Tyr Ser Ala Tyr Asp Tyr Thr Ile
50 55 60
Pro Pro Met Glu Lys Ala Val Val Lys Thr Asp Ile Gln Ile Ala Leu
65 70 75 80
Pro Ser Gly Cys Xaa Gly Arg Val Ala Pro Arg Ser Gly Leu Ala Ala
85 90 95
Lys His Phe Ile Asp Val Gly Xaa Val Ser
100 105

<210> 1449
<211> 60
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1524

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1449

Thr Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys
 1 5 10 15

Gly Ala Lys Lys Lys Val Val Asp Pro Phe Phe Lys Lys Asp Trp Tyr
 20 25 30

Asp Val Lys Ala Pro Ala Met Phe Xaa Ile Arg Xaa Ile Gly Lys Thr
 35 40 45

Leu Val Thr Arg Thr Gln Gly Thr Lys Ile Ala Ser
 50 55 60

<210> 1450

<211> 45

<212> PRT

<213> Homo sapiens

<400> 1450

Asn Phe Gly Ser Leu Leu Gly Ala Cys Leu Ile Leu Gln Ile Thr Thr
 1 5 10 15

Gly Leu Phe Leu Ala Met His Tyr Ser Pro Asp Ala Ser Thr Ala Phe
 20 25 30

Ser Ser Ile Ala His Ile Thr Arg Asp Val Asn Tyr Gly
 35 40 45

<210> 1451

<211> 34

<212> PRT

<213> Homo sapiens

<400> 1451

Lys Leu Leu Asp Asp Asn Gly Asn Ile Ala Glu Glu Leu Ser Ile Leu
 1 5 10 15

Lys Trp Asn Thr Asp Ser Val Glu Glu Phe Leu Ser Glu Lys Leu Glu
 20 25 30

Arg Ile

1525

<210> 1452
<211> 61
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1452
Pro Arg Val Arg Leu Xaa Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro
1 5 10 15
Val Asp Gly Leu Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg
20 25 30
Gly His Tyr Phe Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala
35 40 45
Arg Arg Ile Thr Glu Val Leu Gly Asn Pro Phe Pro His
50 55 60

<210> 1453
<211> 44
<212> PRT
<213> Homo sapiens

<400> 1453
Arg Glu Gln Lys Leu Glu Leu His Arg Gly Ala Ala Ala Leu Glu Leu
1 5 10 15
Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg Gly Cys Ser Glu Pro
20 25 30
Arg Ser His His Cys Thr Pro Val Trp Ala Thr Glu
35 40

<210> 1454
<211> 118
<212> PRT
<213> Homo sapiens

<220>
<221> SITE

1526

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1454

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Val | Ala | Pro | Ser | Val | Leu | Arg | Leu | Ala | Met | Thr | Ser | Tyr | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Arg | Gln | Ser | Ser | Ala | Thr | Ser | Ser | Phe | Gly | Gly | Leu | Gly | Gly | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Arg | Ile | Gly | Pro | Gly | Val | Ala | Phe | Arg | Ala | Pro | Ser | Ile | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ser | Gly | Gly | Arg | Gly | Val | Ser | Val | Ser | Ser | Ala | Arg | Phe | Val |
| | 50 | | | | | 55 | | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ser | Ser | Ser | Gly | Gly | Tyr | Gly | Gly | Gly | Xaa | Gly | Gly | Val | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Ser | Xaa | Gly | Leu | Leu | Ala | Gly | Asn | Glu | Lys | Leu | Thr | Met | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Xaa | Xaa | Thr | Ala | Trp | Leu | Leu | Leu | Xaa | Lys | Phe | Ala | Pro | Xaa | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |

Ala Lys Gly Thr Lys Ser

1527

115

<210> 1455
<211> 48
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1455
Ala Xaa Glu Asn Ser Arg Ile Val Leu Gln Ile Asp Asn Ala Arg Leu
1 5 10 15
Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg
20 25 30
Met Xaa Val Glu Ala Asp Ile Asn Gly Leu Xaa Arg Cys Trp Met Ser
35 40 45

<210> 1456
<211> 143
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (131)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1528

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1456

Gly Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg Asp Lys
 1 5 10 15

Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val Leu Gln Ile Asp
 20 25 30

Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu
 35 40 45

Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg
 50 55 60

Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile
 65 70 75 80

Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu
 85 90 95

Glu Ile Ser Thr Leu Arg Gly Gln Val Gly Gly Gln Val Ser Val Glu
 100 105 110

Val Asp Ser Ala Pro Gly Thr Asp Leu Ala Lys Ile Leu Ser Asp Met
 115 120 125

Arg Ser Xaa Tyr Glu Val Met Ala Xaa Gln Asn Arg Lys Asp Ala
 130 135 140

<210> 1457

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1457

Gly Cys Val Gly Val Arg Pro Ser Leu His Pro Ala Thr Ser Thr Ala
 1 5 10 15

Ser Gly Ser Ala Xaa Pro Thr Leu Ala Arg Ala Met Ala Ser Val Ser
 20 25 30

Glu Leu Ala Cys Ile Tyr Ser Ala Leu Ile Leu His Asp Asp Glu Val

1529

35 40 45
 Thr Val Thr Glu Asp Lys Ile Asn Ala Leu Ile Lys Ala Ala Gly Val
 50 55 60
 Asn Val Glu Pro Phe Trp Pro Gly Leu Phe Ala Lys Ala Leu Ala Asn
 65 70 75 80
 Val Asn Ile Gly Ser Leu Ile Cys Asn Val Gly Ala Gly Gly Pro Ala
 85 90 95
 Pro Ala Ala Gly Ala Ala Thr Ser Arg Arg Ser Cys Pro Leu His Cys
 100 105 110
 Cys Cys Ser Ser
 115

<210> 1458

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1458

Leu Val Pro Asn Ser Ala Arg Ala Ala Ala Ser Ala Ala Asp Ala Ala
 1 5 10 15
 Ala Met Arg Tyr Val Ala Ser Tyr Leu Leu Ala Ala Leu Gly Gly Asn
 20 25 30
 Ser Ser Pro Ser Ala Lys Gly Ile Lys Lys Ile Leu Asp Asn Xaa Gly
 35 40 45
 Ile Glu Ala Asp Asp Asp Arg Leu Asn Lys Val Ile Ser Glu Leu Asn
 50 55 60
 Gly Lys Asn Ile Glu Asp Val Ile Ala Gln Gly Ile Gly Lys Leu Ala
 65 70 75 80
 Ser Val Pro Ala Gly Gly Ala Val Ala Val Ser Ala Ala Pro Gly Ser
 85 90 95
 Ala Ala Pro Ala Ala Gly Ser Ala Pro Ala Ala Ala Glu Glu Lys Lys
 100 105 110

1530

Asp Glu Lys
115

<210> 1459
<211> 132
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1459
Ala Ser Asp Ala Leu His Ser Leu Ser Ala Pro Val Leu Arg Leu Ser
1 5 10 15
Ser Arg Ser Ala Ala Arg Pro Ala Thr Met Thr Glu Gln Ala Ile Ser
20 25 30
Phe Ala Lys Asp Phe Leu Ala Gly Gly Ile Ala Ala Ala Ile Ser Lys
35 40 45
Thr Ala Val Ala Pro Ile Glu Arg Val Lys Leu Leu Leu Gln Val Gln
50 55 60
His Ala Ser Lys Gln Ile Ala Ala Asp Lys Gln Tyr Lys Gly Ile Val
65 70 75 80
Asp Cys Ile Val Arg Ile Pro Lys Glu Gln Gly Val Leu Ser Phe Trp
85 90 95
Arg Gly Asn Leu Ala Asn Val Ile Arg Tyr Phe Pro Thr Gln Ala Leu
100 105 110

1531

Asn Phe Xaa Phe Lys Asp Lys Tyr Lys Gln Xaa Phe Leu Xaa Gly Val
115 120 125

Xaa Lys His Thr
130

<210> 1460

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1532

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (119)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (121)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1460

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Xaa | Lys | Thr | Gly | Phe | Xaa | Asp | Trp | Ile | Ser | Val | Ala | Tyr | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Phe | Arg | Glu | Gly | Ala | Thr | Ile | Ile | Gln | Val | Gly | Lys | Leu | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Ala | Ala | Gly | Lys | Ser | Asn | Leu | Lys | Arg | Val | Thr | Leu | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Lys | Ser | Pro | Cys | Ile | Val | Leu | Ala | Asp | Ala | Asp | Leu | Asp | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Glu | Phe | Ala | His | His | Gly | Val | Phe | Tyr | His | Gln | Gly | Gln | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ile | Ala | Ala | Xaa | Arg | Ile | Phe | Val | Glu | Glu | Ser | Ile | Tyr | Asp | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Arg | Arg | Ser | Val | Glu | Arg | Val | Lys | Xaa | Ile | Ser | Leu | Gly | Xaa |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Thr | Pro | Xaa | Val | Xaa | Xaa | Xaa | Pro | Ser | Asp |
| | 115 | | | | | | 120 | | | | |

<210> 1461

<211> 179

<212> PRT

<213> Homo sapiens

<220>

1533

<221> SITE
<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (142)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (157)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (173)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (174)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (176)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1461
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Val Val Pro Leu Ala
1 5 10 15
Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu Asp Gly Leu Ser Glu
20 25 30

1535

<210> 1463
<211> 71
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1463
Asp Asp Cys Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr
1 5 10 15

Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr
20 25 30

Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp
35 40 45

Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val Asp
50 55 60

Xaa Gly Pro Val Xaa Phe Leu
65 70

<210> 1464
<211> 77
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (10)

1536

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1464

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Thr | Arg | His | Xaa | Leu | Arg | Thr | Xaa | Asn | Gln | Ser | Ser | Asp | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gln | Leu | Ser | Met | Gly | Asn | Ala | Met | Phe | Val | Lys | Glu | Gln | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Asp | Arg | Phe | Thr | Glu | Asp | Ala | Lys | Arg | Leu | Tyr | Gly | Ser | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Ala | Thr | Asp | Phe | Gln | Asp | Ser | Ala | Ala | Ala | Lys | Lys | Leu | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Tyr | Val | Lys | Asn | Gly | Thr | Arg | Gly | Thr | Ile | Thr |
| 65 | | | | | 70 | | | | | 75 | | |

<210> 1465

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1465

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Lys | Gly | Arg | Pro | Gly | Phe | Pro | Gly | Ser | Lys | Gly | Glu | Ala | Gly | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Ile | Pro | Gly | Leu | Lys | Gly | Leu | Ala | Gly | Glu | Pro | Gly | Phe | Lys |
| | | | 20 | | | | | 25 | | | | | | 30 | |

1537

Gly Ser Arg Gly Asp Pro Gly Pro Pro Gly Pro Pro Pro Val Ile Leu
 35 40 45
 Pro Gly Met Lys Asp Ile Lys Gly Glu Lys Gly Asp Glu Gly Pro Met
 50 55 60
 Gly Leu Lys Gly Tyr Leu Gly Ala Lys Gly Ile Gln Gly Met Pro Gly
 65 70 75 80
 Ile Pro Xaa Leu Ser Gly Ile Pro Gly Leu Pro Gly Arg Pro Gly His
 85 90 95
 Ile Xaa Gly Ile Lys Gly Xaa Xaa Gly
 100 105

<210> 1466

<211> 36

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1466

Arg Pro Gly Leu Cys Ala Lys Thr Val Phe Lys Ala Leu Gln Ala Pro
 1 5 10 15

Ala Leu Xaa Glu Glu His Gly Glu Gly Trp Arg Leu His Pro Trp Gly
 20 25 30

Val Trp Glu Thr
 35

<210> 1467

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1538

<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1467
Arg Val Pro Ala Met Ala Ala Lys Gly Gly Thr Val Lys Ala Ala Ser
1 5 10 15
Ala Phe Asn Ala Thr Glu Asp Ala Gln Thr Leu Arg Lys Ala Met Lys
20 25 30
Gly Leu Gly Thr Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr Arg
35 40 45
Asn Thr Ala Gln Arg Gln Glu Ile Arg Thr Ala Leu Gln Glu His His
50 55 60
Ser Ala Gly Asp Leu Val Leu Arg Asn Gly Pro Xaa Phe Val Xaa Xaa
65 70 75 80
Trp Xaa

<210> 1468
<211> 83
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1539

<221> SITE
 <222> (35)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (61)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (66)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (79)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (82)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (83)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1468
 Gly Trp His Leu Gly Pro Pro Gly Ser Trp Cys Trp Trp Ser Xaa Cys
 1 5 10 15

 Ile Thr Gly Pro Asn Thr Ser Xaa Cys Cys Trp Thr His Phe Glu Lys
 20 25 30

 Pro Arg Xaa Ile Asp Asn Val Leu Val Ile Phe Ser His Asp Phe Trp
 35 40 45

 Ser Thr Glu Ile Asn Gln Leu Ile Ala Gly Val Asn Xaa Cys Pro Val
 50 55 60

 Leu Xaa Val Phe Phe Pro Phe Ser Ile Gln Leu Phe Pro Asn Xaa Phe
 65 70 75 80

 Pro Xaa Xaa

<210> 1469

1540

<211> 26
<212> PRT
<213> Homo sapiens

<400> 1469
Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln
1 5 10 15
Pro Lys Ile Val Lys Trp Asp Arg Asp Met
20 25

<210> 1470
<211> 168
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (136)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (139)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (141)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (143)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (148)

1541

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (152)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$

<221> SITE

<222> (153)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1470

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Gly Arg Ser
1 5 10 15

Xaa Gly Ser Lys Leu Thr Tyr Ala Cys Met Arg Arg His Ser Ser Ser
20 25 30

Ile Val Ser Pro Lys Phe Asn Ser Leu Ala Val Val Leu Gln Arg Arg
35 40 45

Asp Trp Glu Asn Pro Gly Val Thr Gln Leu Asn Arg Leu Ala Ala His
50 55 60

Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu Glu Ala Arg Thr Asp Arg
65 70 75 80

Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly Lys Trp Asp Ala Pro Cys
85 90 95

Ser Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr
100 105 110

Ala Thr Leu Ala Ser Ala Leu Arg Pro Val Leu Ser Phe Leu Pro Phe
115 120 125

Leu Ser Arg His Val Arg Arg Xaa Ser Pro Xaa Ser Xaa Lys Xaa Gly
130 135 140

Ala Xaa Phe Xaa Val Pro Ile Xaa Xaa Leu Arg Asp Leu Xaa Pro Lys
145 150 155 160

Asn Leu Ile Arg Val Met Val Thr
165

1542

<210> 1471
 <211> 131
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (88)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (119)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1471
 Cys His Leu Asn Ser Ile His Trp Pro Ser Phe Tyr Asn Val Val Thr
 1 5 10 15
 Gly Lys Thr Leu Ala Xaa Pro Asn Leu Ile Ala Leu Gln His Ile Pro
 20 25 30
 Leu Ser Pro Ala Gly Ser Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro
 35 40 45
 Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu Trp Asp Ala Pro Cys Ser
 50 55 60
 Gly Ala Leu Ser Ala Ala Gly Val Val Val Thr Arg Ser Val Thr Ala
 65 70 75 80
 Thr Leu Ala Ser Ala Leu Ala Xaa Ala Pro Phe Ala Phe Phe Pro Ser
 85 90 95

1543

Phe Leu Ala Thr Phe Ala Gly Phe Pro Arg Gln Ala Leu Asn Xaa Gly
100 105 110

Leu Pro Leu Xaa Phe Arg Xaa Ser Ala Val Arg His Leu Asp Pro Lys
115 120 125

Lys Leu Asp
130

<210> 1472
<211> 179
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (109)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (114)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (117)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (118)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (119)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1545

<221> SITE
 <222> (125)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
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 <222> (139)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
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 <222> (150)
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 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (179)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1472
 Lys Lys Lys Lys Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

 Lys Lys Lys Lys Gly Gly Arg Xaa Xaa Gly Ser Lys Leu Thr Tyr Ala
 20 25 30

 Cys Met Xaa Arg His Ser Ser Xaa Ile Gly Ser Pro Lys Phe Asn Ser
 35 40 45

 Leu Ala Xaa Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr
 50 55 60

 Gln Leu Asn Arg Leu Ala Xaa His Pro Xaa Phe Ala Ser Trp Arg Asn
 65 70 75 80

 Ser Xaa Lys Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu
 85 90 95

 Asn Gly Lys Trp Asp Xaa Pro Cys Xaa Gly Ala Leu Xaa Xaa Ala Gly
 100 105 110

1546

Val Xaa Val Thr Xaa Xaa Xaa Thr Ala Thr Leu Ala Xaa Ala Leu Ala
 115 120 125

Pro Ala Pro Phe Ala Phe Phe Pro Ser Phe Xaa Ala Thr Phe Ala Gly
 130 135 140

Phe Pro Arg Gln Ala Xaa Asn Arg Gly Leu Pro Leu Gly Phe Arg Leu
 145 150 155 160

Xaa Ala Leu Arg Asp Leu Xaa Pro Gln Lys Asn Leu Ile Arg Gly Asp
 165 170 175

Gly Ser Xaa

<210> 1473

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1473

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
 35 40 45

Asn Arg Leu Ala Ala His Pro Pro Phe Ala
 50 55

<210> 1474

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1474

Ile Ala Ser Gly Arg Ser Arg Gly Ser Lys Leu Thr Tyr Ala Cys Met
 1 5 10 15

Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala
 20 25 30

Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly Val Thr Gln Leu
 35 40 45

1547

Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Glu
50 55 60

Glu Ala Arg Thr Asp Arg
65 70

<210> 1475

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1475

Leu Pro Xaa Ala Xaa Tyr Thr Xaa Xaa Gly Thr Thr Pro His Tyr Arg

1548

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 5 | | | | | 10 | | | | | 15 | | | | |
| Glu | Ser | Trp | Tyr | Ala | Cys | Arg | Tyr | Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr |
| 20 | | | | 25 | | | | | 30 | | | | | | |
| His | Ala | Ser | Glu | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Arg | Xaa |
| 35 | | | | 40 | | | | | 45 | | | | | | |
| Asp | Asp | Leu | Glu | Asp | Pro | Lys | Leu | Thr | Tyr | Xaa | Xaa | Met | Gln | | |
| 50 | | | | 55 | | | | | 60 | | | | | | |

<210> 1476

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (44)

1549

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1476

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Xaa | Xaa | Xaa | Leu | Arg | Xaa | Asp | Thr | Thr | His | Tyr | Arg | Glu | Ser |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Tyr | Ala | Cys | Arg | Tyr | Arg | Ser | Gly | Ile | Pro | Gly | Xaa | Thr | His | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Glu | Ile | Cys | Pro | Pro | Xaa | Ser | Arg | Pro | Xaa | Ser | Ser | Gln | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Glu | Gly | Tyr | Ser | Xaa | Cys | Arg | Arg | Pro | Gln | Ala | Leu | Glu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Tyr | Leu | Asn | Pro | Val | Pro | Xaa | Arg | Ile | Leu | Leu | Lys | Pro | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

<210> 1477

<211> 52

<212> PRT

<213> Homo sapiens

<400> 1477

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Val | Pro | His | Glu | Arg | Ala | Val | Arg | Asp | Gly | Arg | Gly | Gly | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met | Arg | Arg | His | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala | Val | Val | Leu | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | |
|-----|-----|-----|-----|
| Arg | Arg | Asp | Trp |
| | | | 50 |

1550

<210> 1478

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1478

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Ser | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Ala | Thr | Leu | Ala | Ser | Ala | Leu | Ala | Pro | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ala | Phe | Phe | Pro | Ser | Phe | Leu | Ala | Thr | Phe | Ala | Gly | Phe | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Ala | Leu | Asn | Arg | Gly | Leu | Pro | Leu | Gly | Xaa | Arg | Phe | Lys | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Thr | Asp | Leu | Asp | Pro | Lys | Lys | Leu | Asp |
| 145 | | | | | 150 | | | | |

<210> 1479

<211> 130

<212> PRT

<213> Homo sapiens

<220>

1551

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1479

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Gly | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Ala | Thr | Leu | Ala | Lys | Arg | Pro | Lys | Arg | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Ser | Leu | Ser | Ser | Phe | Leu | Phe | Xaa | Pro | Arg | Ser | Ala | Gly | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | |
|-----|-----|
| Ser | Pro |
| | 130 |

<210> 1480

<211> 131

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1552

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1480

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Ser | Gly | Arg | Ser | Arg | Gly | Ser | Lys | Leu | Thr | Tyr | Ala | Cys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | His | Ser | Ser | Ser | Ile | Val | Ser | Pro | Lys | Phe | Asn | Ser | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Leu | Gln | Arg | Arg | Asp | Trp | Glu | Asn | Pro | Gly | Val | Thr | Gln | Leu |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Leu | Ala | Ala | His | Pro | Pro | Phe | Ala | Ser | Trp | Arg | Asn | Ser | Glu |
| 50 | | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Arg | Thr | Asp | Arg | Pro | Ser | Gln | Gln | Leu | Arg | Ser | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Asp | Ala | Pro | Cys | Ser | Gly | Ala | Leu | Ser | Ala | Ala | Gly | Val | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Arg | Ser | Val | Thr | Xaa | Thr | Leu | Ala | Ser | Ala | Leu | Ala | Pro | Xaa |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Phe | Ala | Phe | Phe | Leu | Leu | Ser | Arg | His | Gly | Arg | Pro | Ala | Xaa | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | |
|-----|-----|-----|
| Xaa | Lys | Leu |
| | | 130 |

<210> 1481

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

1553

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Xaa Ser Ser Arg Ser Arg Ala Ala Arg Ser Arg Gly Ser Lys Leu Thr
1 5 10 15

Tyr Ala Cys Met Arg Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe
20 25 30

Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Trp Glu Asn Pro Gly
35 40 45

Val Thr Gln Leu Asn Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp
50 55 60

His Asn Ser Glu Glu Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg
65 70 75 80

Ser Leu Asn Gly Glu Trp Asp Xaa Pro Cys Ser Gly Ala Leu Ser Ala
85 90 95

Ala Gly Val Val Val Thr Arg Ser Val Thr Ala Thr Leu Ala Ala Pro
100 105 110

<210> 1482

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1482

Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile Pro Pro Glu

1554

1 5 10 15
 Xaa Ser Arg Glu Leu Asn Leu Cys Leu Xaa Lys Gln Leu Gly Arg Met
 20 25 30
 Gly Arg Tyr Phe Val Leu Asn Leu Gln Tyr Phe Lys Arg Gly Ser Tyr
 35 40 45
 Phe Xaa Ile Leu Cys
 50

<210> 1483

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1483

Ala Asn Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr
 1 5 10 15
 Leu Glu Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile
 20 25 30
 Gln Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala
 35 40 45
 Gly Lys Gln Leu Glu Gly Trp Xaa Gln Leu Xaa Gln Thr
 50 55 60

<210> 1484

<211> 27

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

1555

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1484

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Gly | Pro | Thr | Xaa | Pro | Leu | Pro | Ser | Glu | Thr | Xaa | Gly | Asp | Val |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Pro | Leu | Xaa | Cys | Xaa | Xaa | Gly | Leu | Asn | Met |
| | | | 20 | | | | | 25 | | |

<210> 1485

<211> 45

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

1556

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1485

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Ala | Ala | Gly | Asn | Pro | Leu | Arg | Trp | Pro | Xaa | Ile | Leu | Thr | Ser |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Trp | Lys | Ser | Asp | Ile | Tyr | Xaa | Arg | Lys | Ser | Asp | Gly | Xaa | Tyr | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Leu | Lys | Arg | Thr | Trp | Glu | Lys | Leu | Leu | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 |

<210> 1486

<211> 140

<212> PRT

<213> Homo sapiens

<400> 1486

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Val | Arg | Arg | Ala | Glu | Trp | Leu | Cys | Gly | Arg | Val | Ser | Glu | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ser | Ala | Cys | Ser | Met | Ala | Asp | Gln | Leu | Thr | Glu | Glu | Gln | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Lys | Glu | Ala | Phe | Ser | Leu | Phe | Asp | Lys | Asp | Gly | Asp | Gly | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Thr | Lys | Glu | Leu | Gly | Thr | Val | Met | Arg | Ser | Leu | Gly | Gln | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Glu | Ala | Glu | Leu | Gln | Asp | Met | Ile | Asn | Glu | Val | Asp | Ala | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asn | Gly | Thr | Ile | Asp | Phe | Pro | Glu | Phe | Leu | Thr | Met | Met | Ala | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Met | Lys | Asp | Thr | Asp | Ser | Glu | Glu | Glu | Ile | Arg | Glu | Ala | Phe | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Asp | Lys | Asp | Gly | Asn | Gly | Tyr | Ile | Ser | Ala | Ala | Glu | Leu | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Val | Met | Thr | Asn | Leu | Gly | Arg | Glu | Val | Asn | Arg |
| 130 | | | | | | 135 | | | | | 140 |

1557

<210> 1487
<211> 36
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1487
Xaa Leu Gly Arg Asn Trp Ala Xaa Phe Thr Gly Lys Xaa Val Gly Xaa
1 5 10 15

Ala Ser Xaa Asn Val Tyr Val His Ile Pro His Leu Arg Asn Ser His
20 25 30

Glu Lys Xaa Ser
35

<210> 1488
<211> 34
<212> PRT

1558

<213> Homo sapiens

<400> 1488

Ser Gly Pro Leu Trp Ile Leu Gly Asp Val Phe Ile Gly Arg Tyr Tyr
1 5 10 15

Thr Val Phe Asp Arg Asp Asn Asn Arg Val Gly Phe Ala Glu Ala Ala
20 25 30

Arg Leu

<210> 1489

<211> 160

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1489

Pro Thr Asn Xaa Xaa Lys Ser Xaa Glu Leu His Arg Gly Gly Gly Arg
1 5 10 15

Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Thr
20 25 30

Gln Arg Pro Val Asp Ile Val Phe Leu Leu Asp Gly Ser Glu Arg Leu
35 40 45

Gly Glu Gln Asn Phe His Lys Ala Arg Arg Phe Val Glu Gln Val Ala
50 55 60

1559

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Leu | Thr | Leu | Ala | Arg | Arg | Asp | Asp | Asp | Pro | Leu | Asn | Ala | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| | | | | | | | | | | | | | | | |
| Val | Ala | Leu | Leu | Gln | Phe | Gly | Gly | Pro | Gly | Glu | Gln | Gln | Val | Ala | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| | | | | | | | | | | | | | | | |
| Pro | Leu | Ser | His | Asn | Leu | Thr | Ala | Ile | His | Glu | Ala | Leu | Glu | Thr | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| | | | | | | | | | | | | | | | |
| Gln | Tyr | Leu | Asn | Ser | Phe | Ser | His | Val | Gly | Ala | Gly | Val | Val | His | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| | | | | | | | | | | | | | | | |
| Ile | Asn | Ala | Ile | Val | Arg | Ser | Pro | Arg | Gly | Gly | Ala | Arg | Arg | His | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| | | | | | | | | | | | | | | | |
| Glu | Leu | Pro | Ser | Trp | Ser | Ser | Arg | Thr | Ala | Ser | Arg | Ala | Thr | Thr | Xaa |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

<210> 1490

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1560

<222> (58)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (59)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (62)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (65)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (82)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (86)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (99)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (101)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1490
 Ala Gln Met Gly Met Leu Lys Gly Pro Leu Leu Asn Lys Phe Leu Thr
 1 5 10 15

 Thr Ala Lys Asp Lys Asn Arg Trp Glu Asp Xaa Gly Lys Gln Leu Tyr
 20 25 30

 Asn Val Glu Ala Thr Ser Tyr Xaa Leu Xaa Ala Leu Leu Gln Leu Lys
 35 40 45

 Xaa Phe Asp Phe Val Pro Pro Val Val Xaa Xaa Leu Asn Xaa Gln Arg
 50 55 60

1561

Xaa Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe
 65 70 75 80

Gln Xaa Leu Ala Gln Xaa Gln Lys Asp Gly Pro Asp His Gln Ala Leu
 85 90 95

Asn Leu Xaa Val Xaa Leu Gln Met Leu
 100 105

<210> 1491

<211> 125

<212> PRT

<213> Homo sapiens

<400> 1491

Arg Asn Thr Leu Ile Ile Tyr Leu Asp Lys Val Ser His Ser Glu Asp
 1 5 10 15

Asp Cys Leu Ala Phe Lys Val His Gln Tyr Phe Asn Val Glu Leu Ile
 20 25 30

Gln Pro Gly Ala Val Lys Val Tyr Ala Tyr Tyr Asn Leu Glu Glu Ser
 35 40 45

Cys Thr Arg Phe Tyr His Pro Glu Lys Glu Asp Gly Lys Leu Asn Lys
 50 55 60

Leu Cys Arg Asp Glu Leu Cys Arg Cys Ala Glu Glu Asn Cys Phe Ile
 65 70 75 80

Gln Lys Ser Asp Asp Lys Val Thr Leu Glu Glu Arg Leu Asp Lys Ala
 85 90 95

Cys Glu Pro Gly Val Asp Tyr Val Tyr Lys Thr Arg Leu Ala Arg Phe
 100 105 110

Lys Leu Ser Asn Asp Phe Asp Arg Val His His Gly His
 115 120 125

<210> 1492

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (62)

1562

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1492

Arg Pro Thr Arg Pro Ala Leu Ser Ile Ile Ala Leu Glu Ile Gln Ala
1 5 10 15

Gln Lys Cys Val Glu Leu Thr Glu Gly Ile Glu Cys Leu Gln Thr His
20 25 30

Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe Trp Gln Glu Leu Val Ser
35 40 45

Lys Cys Leu Thr Glu Tyr Ser Ser Lys Gln Ser Gly Ser Xaa Pro Asn
50 55 60

Val Pro Glu Val
65

<210> 1493

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1563

<221> SITE
 <222> (62)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (63)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (74)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1493
 Glu Glu Ile Gln Lys His Asn His Ser Lys Ser Thr Trp Xaa Asp Pro
 1 5 10 15
 Xaa Thr Thr Arg Cys Thr Asn Leu Thr Lys Phe Leu Xaa Glu Ala Ser
 20 25 30
 Leu Val Gly Glu Glu Val Leu Arg Gly Thr Ser Leu Glu Val Thr Leu
 35 40 45
 Leu Glu Glu Xaa Leu Arg Xaa Val Arg Gly Thr Phe Thr Xaa Xaa Pro
 50 55 60
 Lys Gly Lys Leu Phe Pro Lys Thr Phe Xaa
 65 70

 <210> 1494
 <211> 54
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SITE
 <222> (46)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (49)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1494
 Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu Ile Thr Phe His Asp His
 1 5 10 15

1564

Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe Leu Val Leu Tyr Ala Leu
20 25 30
Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn Thr Asn Ile Xaa Asp Ala
35 40 45
Xaa Glu Ile Glu Thr Val
50

<210> 1495
<211> 38
<212> PRT
<213> Homo sapiens

<400> 1495
Phe Phe Gly His Pro Glu Val Tyr Ile Leu Ile Leu Pro Gly Phe Gly
1 5 10 15
Ile Ile Ser His Ile Val Thr Tyr Tyr Ser Gly Lys Lys Glu Pro Phe
20 25 30
Gly Tyr Ile Gly Met Val
35

<210> 1496
<211> 46
<212> PRT
<213> Homo sapiens

<400> 1496
Ala Phe Tyr His Ser Ser Leu Ala Pro Thr Pro Gln Leu Gly Gly His
1 5 10 15
Trp Pro Pro Thr Gly Ile Thr Pro Leu Asn Pro Leu Glu Val Pro Leu
20 25 30
Leu Asn Thr Ser Val Leu Leu Ala Ser Gly Val Ser Ile Thr
35 40 45

<210> 1497
<211> 60
<212> PRT
<213> Homo sapiens

<400> 1497

1565

Ala Gln Val Gly Leu Gln Asp Ala Thr Ser Pro Ile Ile Glu Glu Leu
1 5 10 15
Ile Thr Phe His Asp His Ala Leu Ile Ile Ile Phe Leu Ile Cys Phe
20 25 30
Leu Val Leu Tyr Ala Leu Phe Leu Thr Leu Thr Thr Lys Leu Thr Asn
35 40 45
Thr Asn Ile Ser Asp Ala Gln Glu Ile Glu Thr Val
50 55 60

<210> 1498
<211> 45
<212> PRT
<213> Homo sapiens

<400> 1498
Thr Tyr Glu Tyr Thr Asp Tyr Gly Gly Leu Ile Phe Asn Ser Tyr Ile
1 5 10 15
Leu Pro Pro Leu Phe Leu Glu Pro Gly Asp Leu Arg Leu Leu Asp Gly
20 25 30
Asp Asn Arg Val Val Leu Pro Ile Glu Ala Pro Phe Val
35 40 45

<210> 1499
<211> 69
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1499
His Arg Leu Asp Phe Leu Gln Leu Met Ile Asp Ser Gln Asn Ser Lys
1 5 10 15
Glu Thr Glu Ser His Lys Ala Leu Ser Asp Leu Glu Leu Ala Ala Gln
20 25 30
Ser Ile Ile Phe Ile Phe Ala Gly Tyr Glu Thr Thr Ser Ser Val Leu
35 40 45

1566

Ser Phe Thr Leu Tyr Glu Leu Ala Thr His Pro Asp Val Gln Xaa Lys
50 55 60

Leu Gln Lys Gly Asp
65

<210> 1500

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1500

Arg Leu Thr Ser Thr Ala Cys Ala Glu Ser Trp Asp Glu Leu Thr Leu
1 5 10 15

Ala Arg Xaa Asp Leu Glu Xaa Gln Ile Glu Gly Leu Asn Glu Xaa Ala
20 25 30

Ser Leu Thr
35

<210> 1501

<211> 126

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1568

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1501

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Xaa | Ala | Pro | Ser | Arg | Ile | Ser | Ala | Trp | Xaa | Gly | Pro | Pro | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Ala | Ser | Thr | Met | Ser | Ile | Lys | Val | Thr | Gln | Lys | Ser | Tyr | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Ser | Thr | Ser | Ser | Pro | Arg | Ala | Phe | Ser | Ser | Arg | Ser | Tyr | Thr | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Gly | Ser | Arg | Ile | Asn | Xaa | Ser | Xaa | Phe | Ser | Arg | Ile | Gly | Ser |
| | 50 | | | | | 55 | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Xaa | Xaa | Ser | Gly | Leu | Gly | Gly | Gly | Tyr | Xaa | Gly | Ala | Ser | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Xaa | Gly | Ile | Thr | Ala | Val | Thr | Val | Asn | Gln | Ser | Leu | Leu | Xaa | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Leu | Glu | Val | Asp | Pro | Asn | Ile | Gln | Ala | Val | Arg | Thr | Gln | Glu |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Gln | Ile | Xaa | Thr | Leu | Asn | Asn | Lys | Phe | Ala | Ser | Ser |
| | | 115 | | | | | 120 | | | | | 125 | |

<210> 1502

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
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<220>
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<220>
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1570

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<221> SITE

<222> (72)

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<220>

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<222> (76)

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<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1502

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Asn | Ser | Xaa | Gly | Ser | Arg | Thr | Xaa | Xaa | Ser | Arg | Xaa | Xaa | Cys |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Val | Ala | Met | Phe | Ser | Trp | Asp | Pro | Xaa | Leu | Val | Xaa | Gly | Gly |
| | | 20 | | | | | 25 | | | | 30 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Ser | Lys | Met | Ala | Val | Ala | His | Ala | Leu | Xaa | Glu | Lys | Ser | Xaa |
| | 35 | | | | 40 | | | | 45 | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Asp | Trp | Cys | Gly | Asn | Asn | Gly | His | Thr | Gly | Leu | Leu | Xaa | Arg |
| | 50 | | | | 55 | | | | 60 | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Xaa | Val | His | Ser | Ser | Xaa | Pro | Trp | Ile | Xaa | Lys | Leu | Trp | Gly |
| 65 | | | | 70 | | | | 75 | | | | | 80 | | |

Xaa Ser His His

<210> 1503

<211> 70

<212> PRT

<213> Homo sapiens

<220>

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<220>

<221> SITE

1571

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1503

Val Gly Val Leu Gly Leu Asp Leu Trp Gln Val Lys Ser Gly Thr Ile
1 5 10 15

Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu Ala Tyr Ala Glu Glu Phe
20 25 30

Gly Asn Glu Thr Trp Gly Val Thr Lys Ala Ala Glu Lys Gln Met Lys
35 40 45

Asp Lys Gln Asp Glu Glu Gln Arg Leu Lys Glu Glu Glu Asp Lys
50 55 60

Lys Arg Lys Glu Xaa Xaa
65 70

<210> 1504

<211> 42

<212> PRT

<213> Homo sapiens

<220>

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<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (6)

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<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (16)

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<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

1572

<400> 1504

Asn Thr Leu Xaa Tyr Xaa Met Lys Ala Thr Xaa Ile Leu Leu Leu Xaa
1 5 10 15
Ala Gln Leu Ser Trp Ala Gly Pro Phe His Gln Thr Gly Leu Leu Asp
20 25 30
Ser Met Leu Glu His Glu Ala Tyr Xaa Ile
35 40

<210> 1505

<211> 72

<212> PRT

<213> Homo sapiens

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<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1505

Xaa His Xaa Asp Cys Ser Xaa Pro Ile Val Ala Ala Gly Val Gly Glu
1 5 10 15

1573

Phe Glu Ala Gly Ile Ser Lys Asn Gly Gln Thr Arg Glu His Ala Leu
 20 25 30
 Leu Ala Tyr Thr Leu Gly Val Lys Gln Leu Ile Val Gly Xaa Asn Lys
 35 40 45
 Met Asp Ser Thr Glu Pro Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile
 50 55 60
 Xaa Lys Glu Val Ser Thr Tyr Xaa
 65 70

<210> 1506
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 1506
 Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu
 1 5 10 15
 Asp Asn Phe Leu Asp Lys Leu
 20

<210> 1507
 <211> 87
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (79)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1507
 Lys Leu Pro Leu Lys Ala Lys Met Gly Lys Glu Lys Thr His Ile Asn
 1 5 10 15
 Ile Val Val Ile Gly His Val Asp Ser Gly Lys Ser Thr Thr Thr Gly
 20 25 30
 His Leu Ile Tyr Lys Cys Gly Gly Ile Asp Lys Arg Thr Ile Glu Lys
 35 40 45
 Phe Glu Lys Glu Ala Ala Glu Met Gly Lys Gly Ser Phe Lys Tyr Ala
 50 55 60

1574

Trp Val Leu Asp Lys Leu Lys Ala Glu Arg Glu Arg Gly Ile Xaa Ile
 65 70 75 80

Gly Tyr Leu Leu Val Glu Ile
 85

<210> 1508

<211> 110

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (96)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1508

Pro Asp Pro Xaa Ile Phe Ala Pro Pro Ile Ser Ala Pro Pro Pro Ser
 1 5 10 15

Ser Gly Thr Arg Asp Arg Ser Gln Arg Ser Leu Asp His Tyr Glu Pro
 20 25 30

Pro Val Gln Pro Arg Gly Pro Cys Pro Arg Ser Phe Glu Leu Leu Val
 35 40 45

Arg Ala Val Gly Ala Ala Ala Ala Asp Ala Ala Arg Ala His Arg
 50 55 60

1575

Gln Arg Trp Ser Cys Arg Cys Cys Val Xaa Arg Ala Ala Leu Pro Phe
65 70 75 80

Val Tyr Arg Pro Arg Lys Glu Ser Ile Pro Lys Met Ile Ser Asn Xaa
85 90 95

Gln Val Xaa Ala Ile Gly Pro Thr Val Leu Gln Xaa Gly Lys
100 105 110

<210> 1509

<211> 60

<212> PRT

<213> Homo sapiens

<220>

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<222> (18)

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<220>

<221> SITE

<222> (27)

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<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (43)

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

1576

<400> 1509

Ser Phe Val Glu Leu Pro Leu Ala Ser Ile Val Ser Leu His Ala Ser
 1 5 10 15

Ser Xaa Gly Gly Arg Leu Gln Thr Ser Pro Xaa Pro Ile Gln Xaa Thr
 20 25 30

Pro Pro Lys Asp Thr Cys Ser Pro Xaa Leu Xaa Met Ser Leu Xaa Pro
 35 40 45

Xaa Lys Leu Cys Arg Arg Arg His Gly Pro Trp Tyr
 50 55 60

<210> 1510

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1510

Gly Thr Ser Ser Ser Gln Arg Phe Tyr Lys Glu Asn Leu Gly Gln Gly
 1 5 10 15

Trp Met Thr Gln Lys His Glu Arg Met Lys Val Tyr Val Pro Thr Gly
 20 25 30

Phe Ser Ala Phe Pro Phe Glu Leu Leu His Thr Pro Glu Lys Trp Val
 35 40 45

Arg Phe Lys Tyr Pro Lys Leu Ile Ser Tyr Ser Tyr Met Val Arg Gly

1577

50 55 60
 Gly His Phe Ala Ala Phe Glu Glu Pro Glu Leu Leu Ala Gln Asp Ile
 65 70 75 80
 Arg Lys Phe Leu Ser Val Leu Glu Arg His Xaa Xaa Thr Pro Leu Pro
 85 90 95
 Pro Leu Ala Thr Ser Pro His Asn Ala Leu Gln Xaa Phe Leu Gly Glu
 100 105 110
 Asp Asn Xaa Phe
 115

<210> 1511
 <211> 156
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (11)
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<220>
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 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (143)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1511
 Arg Glu Gln Lys Leu Glu Leu His Arg Gly Xaa Gly Arg Ser Arg Thr
 1 5 10 15
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Arg Asp Arg Gly Gly
 20 25 30
 Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly
 35 40 45
 Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Ser
 50 55 60
 Ile Gly Asp Phe Cys Cys Asp Val Ile Val Cys Arg Gly Cys Gly Asn
 65 70 75 80

1578

Gln Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Gly Asp Arg Gly
85 90 95

Arg Gly Gly Pro Gly Gly Met Xaa Gly Gly Arg Gly Gly Leu Met Asp
100 105 110

Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg Gly Gly Asp Arg
115 120 125

Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly Gly Phe Xaa Gly
130 135 140

Gly Arg Arg Gly Gly Pro Gly Gly Pro Leu Asp Leu
145 150 155

<210> 1512

<211> 102

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (101)

1579

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1512

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Met | Arg | Arg | Pro | Arg | Gly | Glu | Pro | Ala | Pro | Gly | Pro | Arg | Asp | Arg |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Glu | Arg | Pro | Ala | Gln | Gly | Pro | Gly | Ser | His | Val | Arg | Val | Ala |
| | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Ala | Thr | Val | Asn | Ile | Leu | Xaa | Ser | Leu | Cys | Gln | Leu | Arg | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Phe | Xaa | Ala | Leu | His | Phe | Val | Xaa | Ser | Pro | Gly | Phe | Ile | Xaa |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ile | Ser | Gly | Thr | Pro | His | Ala | Leu | Ile | Val | Arg | Arg | Tyr | Leu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Asp | Thr | Ala | Val | Glu | Leu | Xaa | Leu | Pro | Arg | Tyr | Arg | Gly | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Arg | Xaa | Gln |
| | | | 100 | | |

<210> 1513

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1513

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Glu | Arg | Gly | Phe | Glu | Glu | Leu | Pro | Leu | Cys | Ser | Cys | Arg | Met |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Pro | Lys | Ile | Asp | Ser | Ile | Ser | Glu | Arg | Ala | Gly | His | Lys | Cys |
| | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Thr | Glu | Ser | Val | Asp | Gly | Glu | Leu | Ser | Gly | Cys | Asn | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Lys | Arg | Glu | Thr | Met | Arg | Pro | Ser | Ser | Arg | Val | Ala | Leu | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Cys | Glu | Thr | His | Arg | Ala | Arg | Met | Val | Lys | His | His | Cys | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

1580

Pro Gly Cys Gly Tyr Phe Cys Thr Ala Gly Thr Phe Leu Glu Cys His
85 90 95

Pro Asp Phe Arg Val Ala His Arg Phe His Lys Ala Cys Val Ser Gln
100 105 110

Leu Asn Gly Met Val Phe Cys Pro His Cys Gly Glu Asp Thr Ser Glu
115 120 125

Ala Gln Xaa Val Thr Ile Pro Gly Val Thr Gly
130 135

<210> 1514

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1581

<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1514
Ile Arg His Glu Ser Ile Ser Gly Ala Ser Xaa Lys Asp Ile Val His
1 5 10 15
Ser Gly Xaa Ala Tyr Thr Xaa Glu Xaa Ser Ala Arg Gln Xaa Met Arg
20 25 30
Thr Ala Met Lys Xaa Asn Leu Gly Xaa Asp Leu Arg Thr Ala Ser Tyr
35 40 45
Xaa Asn Ala Ile Xaa Xaa Val Phe Lys Val Tyr Xaa Glu Ala Gly Val
50 55 60
Thr Phe Thr Xaa Met Xaa His Gly
65 70

1582

<210> 1515
 <211> 88
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (82)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (85)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1515
 Leu Tyr Pro Pro Ala Cys Ser Ala Thr Arg Thr Pro Ser Thr Met Thr
 1 5 10 15
 Thr Ser Ala Ser Ser His Leu Asn Lys Gly Ile Lys Gln Val Tyr Met
 20 25 30
 Ser Leu Pro Gln Gly Glu Lys Val Gln Ala Met Tyr Ile Trp Ile Asp
 35 40 45
 Gly Thr Gly Glu Gly Leu Arg Cys Lys Thr Arg Thr Leu Asp Ser Glu
 50 55 60
 Pro Lys Cys Val Glu Glu Leu Pro Glu Trp Asn Phe Asp Gly Ser Ser
 65 70 75 80
 Thr Xaa Gln Ser Xaa Gly Ser Ser
 85

<210> 1516
 <211> 105
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (8)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (10)
 <223> Xaa equals any of the naturally occurring L-amino acids

1583

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<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE
<222> (87)
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<221> SITE
<222> (89)
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<222> (94)
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<222> (103)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1516
Gly Arg Glu Ser Gln Asp Thr Xaa Phe Xaa Xaa Leu Val Glu Arg Val
 1             5             10             15

Ile Gln Gln Leu Glu Gly Ala Phe Ala Leu Xaa Phe Lys Ser Val His
      20             25             30

Phe Pro Gly Gln Ala Xaa Gly Thr Arg Arg Gly Ser Pro Leu Leu Ile
      35             40             45

Gly Val Arg Ser Glu His Lys Leu Ser Thr Asp His Ile Pro Ile Leu
      50             55             60

Tyr Arg Thr Gly Lys Asp Lys Lys Gly Ser Cys Asn Leu Ser Arg Val
      65             70             75             80

```

1584

Asp Ser Thr Thr Cys Leu Xaa Pro Xaa Glu Glu Lys Ala Xaa Glu Tyr
85 90 95

Tyr Phe Ala Ser Asp Ala Xaa Ala Ala
100 105

<210> 1517

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1585

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1517

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Xaa | Glu | Lys | Arg | Glu | Arg | Glu | Arg | Glu | Arg | Leu | Val | Ile | Arg | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Val | Gln | Xaa | Leu | Gln | Ala | Tyr | Lys | Pro | Arg | Glu | Asn | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ala | Leu | Glu | Lys | Ala | Asp | Val | Val | Met | Val | Thr | His | Gln | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Arg | Leu | Ala | Gly | Gly | Arg | Glu | Ala | Leu | Arg | Arg | Gly | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | Ser | Cys | Asp | Ser | Xaa | Xaa | Ser | Ser | Phe | Pro | Thr | Gln | Arg | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Gln | Asn | Leu | Lys | Gly | Ser | Phe | Ile | Glu | Cys | Lys | Thr | Cys | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Ala | Xaa | Gly | Asn | Ser | Lys | Pro | Xaa | Phe | Ser | Xaa | Xaa | Glu | Gly |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Phe | Val | Ser | Trp | Lys | Asn | Lys | Leu |
| | 115 | | | | | 120 | | |

<210> 1518

<211> 146

<212> PRT

<213> Homo sapiens

<220>

1586

<221> SITE
 <222> (71)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (118)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
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 <222> (132)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
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 <222> (135)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (138)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1518
 Arg Gly Pro Ala Gln Arg Gly Glu Gly Ala Arg Glu Ala Asn Lys Lys
 1 5 10 15

 Ile Glu Lys Gln Leu Gln Lys Asp Lys Gln Val Tyr Arg Ala Thr His
 20 25 30

 Arg Leu Leu Leu Leu Gly Ala Gly Glu Ser Gly Lys Ser Thr Ile Val
 35 40 45

 Lys Gln Met Arg Ile Leu His Val Asn Gly Phe Asn Gly Asp Ser Glu
 50 55 60

 Lys Ala Thr Lys Val Gln Xaa Ile Lys Asn Asn Leu Lys Glu Ala Ile
 65 70 75 80

 Glu Thr Ile Val Ala Ala Met Ser Asn Leu Val Pro Pro Val Glu Leu
 85 90 95

 Ala Asn Pro Glu Asn Gln Phe Arg Val Asp Tyr Ile Leu Ser Val Met
 100 105 110

 Asn Val Pro Asp Phe Xaa Phe Pro Pro Glu Phe Tyr Glu His Ala Lys
 115 120 125

 Ala Leu Trp Xaa Asp Glu Xaa Val Arg Xaa Cys Tyr Glu Arg Ser Asn
 130 135 140

1587

Glu Tyr
145

<210> 1519
<211> 137
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1519
Asp Ser Gln Arg Gln Ala Thr Lys Asp Ala Gly Val Ile Ala Gly Leu
1 5 10 15
Asn Val Leu Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr
20 25 30
Gly Leu Asp Arg Thr Gly Lys Gly Glu Arg Asn Val Leu Ile Phe Asp
35 40 45
Leu Gly Gly Gly Thr Phe Asp Val Ser Ile Leu Thr Ile Asp Asp Gly
50 55 60
Ile Phe Glu Val Lys Ala Thr Xaa Gly Asp Thr His Leu Gly Gly Glu
65 70 75 80
Asp Phe Asp Asn Arg Leu Val Asn His Phe Val Glu Glu Phe Lys Arg
85 90 95
Lys His Lys Lys Asp Ile Ser Gln Asn Lys Arg Ala Val Arg Arg Leu
100 105 110
Arg Thr Ala Ala Arg Gly Pro Arg Gly Pro Cys Arg Pro Ala Pro Arg
115 120 125
Pro Ala Trp Arg Ser Thr Ser Leu Phe
130 135

<210> 1520
<211> 100
<212> PRT
<213> Homo sapiens

1588

<220>
 <221> SITE
 <222> (16)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (19)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (45)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (99)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1520

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Arg | Lys | Ser | Ser | Trp | Lys | Arg | Trp | Trp | Pro | Gln | Ser | Lys | Leu | Xaa |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Thr | Arg | Xaa | Ile | Val | Thr | Ile | Gly | Ile | Lys | Ala | Met | Ala | Thr | Met | Asp |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Ile | Thr | Ala | Lys | Val | Thr | Val | Val | Met | Glu | Asp | Met | Xaa | Tyr | Thr | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Asn | Asn | Tyr | Tyr | Gly | Tyr | Gly | Asp | Tyr | Ser | Asn | Gln | Gln | Ser | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Gly | Lys | Val | Ser | Arg | Arg | Gly | Gly | His | Gln | Asn | Ser | Tyr | Lys | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Tyr | Leu | Asn | Tyr | Ser | Ile | Cys | Asn | Leu | Ser | Pro | Thr | Gly | Gly | Glu | Ala |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Tyr | Phe | Xaa | Ile | | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 1521
 <211> 129
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE

1589

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1521

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Trp | Ala | Leu | Ala | Pro | Gly | Pro | Val | Leu | Phe | Ser | Asn | Met | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Lys | Phe | Pro | Gly | Ser | Ser | Cys | Met | Ala | Ala | Leu | Thr | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Val | Leu | Asn | Ser | Pro | Leu | Ala | Leu | Ala | Gly | Asp | Thr | Arg | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Leu | Glu | Gln | Val | Lys | His | Glu | Cys | His | Phe | Phe | Asn | Gly | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Val | Arg | Phe | Leu | Asp | Xaa | Tyr | Phe | Tyr | His | Gln | Glu | Glu | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Phe | Asp | Ser | Asp | Val | Gly | Glu | Tyr | Arg | Ala | Val | Thr | Xaa | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Pro | Asn | Ser | Glu | Tyr | Trp | Asn | Ser | Gln | Lys | Asp | Xaa | Xaa | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Gly | Pro | Arg | Trp | Thr | Pro | Thr | Ala | Xaa | Thr | Leu | Arg | Gly | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Val

1590

<210> 1522
<211> 113
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

1591

<220>
 <221> SITE
 <222> (74)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (80)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (90)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (93)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (97)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (110)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1522
 Xaa Xaa Thr Asp Ser Xaa Arg Pro Asp Ser Arg Val Asp Pro Arg Val
 1 5 10 15
 Arg Glu Val Thr Asp Tyr Ala Ile Ala Arg Arg Ile Val Asp Leu His
 20 25 30
 Ser Arg Ile Glu Glu Ser Ile Xaa Asn Ile Tyr Xaa Leu Asp Asp Ile
 35 40 45
 Arg Arg Tyr Leu Xaa Tyr Ala Arg Lys Xaa Lys Pro Lys Asn Ser Lys
 50 55 60
 Xaa Ser Xaa Asp Phe Ile Val Glu Gln Xaa Lys His Leu Arg Pro Xaa
 65 70 75 80
 Asp Gly Phe Trp Ser Ser Pro Val Phe Xaa Glu Gly Xaa Ser Cys Gly
 85 90 95
 Xaa Ile Glu Gly Leu Gly Ser Val Ser Leu Gly Ser Gln Xaa Leu Arg

1592

100

105

110

Val

<210> 1523

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1523

Pro Cys Lys Gly Ser Ile Ile Thr Trp Ser Leu Ile Arg Asp Leu Xaa

1

5

10

15

Glu Trp Leu His Glu Gly Gln Leu Ala Leu Thr Phe Asn Gln Xaa Asn

20

25

30

<210> 1524

<211> 28

<212> PRT

<213> Homo sapiens

<400> 1524

Pro Cys Lys Gly Ser Ile Ile Thr Cys Ser Leu Asn Arg Asp Leu Tyr

1

5

10

15

Glu Trp Leu His Glu Gly Ser Ala Val Ser Tyr Phe

20

25

<210> 1525

<211> 92

<212> PRT

1593

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1525

Xaa Glu Gln Lys Leu Xaa Leu His Arg Gly Gly Gly Arg Ser Arg Thr
1 5 10 15

1594

Ser Gly Ser Pro Xaa Leu Xaa Glu Phe Gly Thr Ser Gly Thr Arg Pro
 20 25 30
 Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Leu Cys Tyr Pro
 35 40 45
 Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly Gln Gly
 50 55 60
 Val Cys Met Glu Leu Ala Xaa Ile Glu Ala Xaa Xaa Glu Ser Leu Xaa
 65 70 75 80
 Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Xaa
 85 90

<210> 1526

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1526

Xaa Glu Pro Ser Pro Gly Ile Phe Arg Trp Phe His Leu Val Asn Arg
 1 5 10 15
 Thr Glu Gln Arg Glu Leu Thr Met Glu Phe Gly Leu Ser Trp Leu Phe
 20 25 30
 Leu Val Ala Ile Leu Lys Gly Val Gln Cys Glu Val Gln Leu Val Glu
 35 40 45
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 50 55 60
 Thr Val Ser Gly Phe Thr Phe Arg Asn Tyr Ala Met Ser Trp Val Arg
 65 70 75 80
 Gln Gly Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Asp Gly Ser
 85 90 95

1595

Gly Tyr Asn Thr Tyr Tyr Glu Arg Ser Leu Gln Gly Arg Phe Ser Val
100 105 110

Ser Arg Asp Asn Ser Xaa Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
115 120 125

Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Lys Thr Glu Arg Met
130 135 140

Gly Thr Gly Trp Tyr Gly Arg Asn Asp Tyr
145 150

<210> 1527

<211> 135

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

 $\langle 222 \rangle \quad (133)$

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

$\langle 222 \rangle$ (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1527

Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp
1 5 10 15

Pro Arg Val Arg Thr Val Thr Pro Gly Glu Thr Ala Ser Ile Ser Cys
20 25 30

Arg Ser Ser Gln Thr Leu Leu His Val Asn Gly His Asn Tyr Leu Asp
35 40 45

Trp Tyr Met Gln Lys Pro Gly Gln Pro Pro Gln Leu Val Val Tyr Arg
50 55 60

1596

Gly Ser Asn Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Gly Gly
 65 70 75 80
 Ser Gly Thr Asp Phe Thr Leu Arg Ile Thr Thr Val Glu Ala Xaa Asp
 85 90 95
 Val Gly Val Tyr Tyr Cys Met Gln Ala Leu Gln Ser Pro Tyr Thr Phe
 100 105 110
 Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Gly Cys Thr Ile
 115 120 125
 Xaa Leu His Leu Xaa Xaa Ile
 130 135

<210> 1528

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1528

Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg Thr
 1 5 10 15
 Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Gly Trp Ala Leu
 20 25 30
 Arg Ile Ser Arg Phe Leu Pro Gly Phe His Ser Phe Ala Pro Cys Thr
 35 40 45
 Val Ala Pro Ser Leu Arg Ala Gln Pro Ala Lys Gln Arg Ala Pro Val
 50 55 60
 Ala Gly Val Met Gln Arg Ala Arg Pro Thr Leu Trp Ala Ala Ala Leu
 65 70 75 80
 Thr Leu Leu Val Leu Leu Arg Gly Pro Pro Val Ala Arg Ala Gly Ala
 85 90 95

1597

Ser Ser Gly Gly Leu Gly Pro Val Val Arg Cys Glu Pro Cys Asp Ala
 100 105 110

Arg Ala Leu Ala Xaa Cys Ala Pro Ser Ala Arg Arg Val Arg Arg Asn
 115 120 125

Leu Val Arg Gln Ala Gly Leu Ala Xaa Ala Ala
 130 135

<210> 1529

<211> 135

<212> PRT

<213> Homo sapiens

<400> 1529

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ile Asp Asp Thr Asn
 1 5 10 15

Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys Glu Glu
 20 25 30

Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Val Lys Gly Leu Gln
 35 40 45

Ala Gln Ile Ala Ser Ser Gly Leu Thr Val Glu Val Asp Ala Pro Lys
 50 55 60

Ser Gln Asp Leu Ala Lys Ile Met Ala Asp Ile Arg Ala Gln Tyr Asp
 65 70 75 80

Glu Leu Ala Arg Lys Asn Arg Glu Glu Leu Asp Lys Tyr Trp Ser Gln
 85 90 95

Gln Ile Glu Glu Ser Thr Thr Val Val Thr Thr Gln Ser Ala Glu Val
 100 105 110

Gly Ala Ala Glu Thr Thr Leu Thr Glu Leu Arg Arg Thr Val Gln Ser
 115 120 125

Leu Glu Ile Asp Leu Gly Leu
 130 135

<210> 1530

<211> 132

<212> PRT

<213> Homo sapiens

1598

<400> 1530

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Gln Val Pro Ala Arg
 1 5 10 15

Lys Lys Arg Pro Lys Arg Leu Arg Thr Gly Asn Met Val Arg Ser Gly
 20 25 30

Asn Lys Ala Ala Val Val Leu Cys Met Asp Val Gly Phe Thr Met Ser
 35 40 45

Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu Gln Ala Lys Lys Val
 50 55 60

Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala Glu Asn Lys Asp Glu
 65 70 75 80

Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr Asp Asn Pro Leu Ser
 85 90 95

Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His Arg His Leu Met Leu
 100 105 110

Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Lys Gln Asn Pro Thr Arg
 115 120 125

Phe Ser Thr Gly
 130

<210> 1531

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

1599

<220>
 <221> SITE
 <222> (61)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (69)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (75)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (78)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (94)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1531
 Arg Lys Arg Leu Lys Gly Glu Glu Gln Lys Leu Leu Arg Asn Ala Arg
 1 5 10 15
 Arg Xaa Gln Lys Met Ala Cys Gln Met Thr Xaa Asn His Ser Ser Val
 20 25 30
 Ser Xaa Leu Lys Gly Ser Ser Leu Gln Asp Arg Arg Ala Ser Arg Phe
 35 40 45
 Leu Ile Lys Ser Val Gln Lys Ser Ser Gly Val Gln Xaa Asp Pro Ser
 50 55 60
 Ser Ser Ile Ser Xaa Pro Ser Leu Thr Ala Xaa Trp Ser Xaa Leu Pro
 65 70 75 80
 Trp His Leu Arg Gly Pro Lys Ala Ala Lys Thr Leu Lys Xaa
 85 90

<210> 1532
 <211> 153
 <212> PRT
 <213> Homo sapiens

1600

<400> 1532

Gln Thr Thr Met Cys Tyr Gly Lys Cys Ala Arg Cys Ile Gly His Ser
 1 5 10 15
 Leu Val Gly Leu Ala Leu Leu Cys Ile Ala Ala Asn Ile Leu Leu Tyr
 20 25 30
 Phe Pro Asn Gly Glu Thr Lys Tyr Ala Ser Glu Asn His Leu Ser Arg
 35 40 45
 Phe Val Trp Phe Phe Ser Gly Ile Val Gly Gly Gly Leu Leu Met Leu
 50 55 60
 Leu Pro Ala Phe Val Phe Ile Gly Leu Glu Gln Asp Asp Cys Cys Gly
 65 70 75 80
 Cys Cys Gly His Glu Asn Cys Gly Lys Arg Cys Ala Met Leu Ser Ser
 85 90 95
 Val Leu Ala Ala Leu Ile Gly Ile Ala Gly Ser Gly Tyr Cys Val Ile
 100 105 110
 Val Ala Ala Leu Gly Leu Ala Glu Gly Pro Leu Cys Leu Asp Ser Leu
 115 120 125
 Gly Gln Trp Asn Tyr Thr Phe Ala Ser Thr Glu Gly Gln Val Pro Ser
 130 135 140
 Gly Tyr Leu His Met Val Arg Val His
 145 150

<210> 1533

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1533

Leu Cys Leu Leu Arg Thr Thr Val Thr Glu Val Ser Arg Ala Phe Ser
 1 5 10 15
 Leu Leu Cys Lys Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val
 20 25 30
 Ala Glu Glu Glu Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly
 35 40 45
 Val Gly Gln Val Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser
 50 55 60

1601

Leu Ala Asp Glu Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys
 65 70 75 80
 Gly Glu Met Met Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro
 85 90 95
 Lys Ile Leu Ala Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile
 100 105 110
 Val Val Val Thr Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu
 115 120 125
 Asn Leu Val Gln Arg Asn Val Asn Val Phe Lys Phe Ile Ile
 130 135 140

<210> 1534

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1534

Ala His Cys His Ala Pro Pro Thr Thr Ala Arg Arg Ala Phe Pro Ile
 1 5 10 15
 Pro Phe Gly Ser Lys Ser Asn Met Ala Thr Leu Lys Asp Gln Leu Ile
 20 25 30
 Tyr Asn Leu Leu Lys Glu Glu Gln Thr Xaa Gln Asn Lys Ile Thr Xaa
 35 40 45

1602

Val Gly Val Gly Ala Xaa Gly Met Ala Cys Ala Ile Xaa Ile Leu Met
 50 55 60

Lys Asp Leu
 65

<210> 1535

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1535

Xaa Lys Lys Tyr Leu Gly Asp Xaa Ile Glu Gly Thr Pro Ala Gly Thr
 1 5 10 15

Gly Pro Glu Phe Pro Gly Leu Leu Thr Cys Leu Leu Gln Leu Ile Met
 20 25 30

Val Thr Asn Lys Ala Ile Ala Ser Gln Ile Ser Gln Ile Lys His Phe
 35 40 45

Phe His Cys Ile Leu Val Val Val Cys Pro Asn Ser Ser Met Tyr Leu
 50 55 60

Ile Met Ser Gly Ser Ile Leu His
 65 70

<210> 1536

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

1603

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1536

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Ala | Trp | Gly | Ser | Glu | Cys | Glu | Lys | Cys | Pro | Leu | Pro | Gly | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Phe | Xaa | Glu | Ile | Cys | Pro | Ala | Gly | His | Gly | Tyr | Thr | Tyr | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Asp | Ile | Arg | Leu | Ser | Met | Arg | Lys | Ala | Glu | Xaa | Glu | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Xaa | Pro | Pro | Arg | Glu | Gln | Gly | Gln | Xaa | Ser | Ser | Trp | Ala | Leu | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Thr | Xaa | Lys | Gln | Pro | Leu | Arg | Val | Arg | His | Gly | His | Leu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

<210> 1537

<211> 137

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

1604

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1537

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Gln | Cys | Gln | Asp | Ser | Lys | Asp | Ser | Asn | His | Leu | Pro | Lys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Ser | Ala | Phe | Thr | Leu | Phe | Leu | Ala | Leu | Ile | Gly | Gly | Thr | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Tyr | Tyr | Asp | Tyr | Asp | Phe | Pro | Leu | Ser | Ile | Tyr | Gly | Gln | Ser |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Asn | Cys | Ala | Pro | Glu | Cys | Asn | Xaa | Pro | Glu | Ser | Tyr | Pro | Ser |
| | 50 | | | | | | 55 | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Met | Tyr | Cys | Asp | Glu | Leu | Lys | Leu | Xaa | Ser | Val | Pro | Met | Val | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ile | Lys | Tyr | Leu | Tyr | Leu | Arg | Asn | Asn | Gln | Ile | Asp | His | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Lys | Ala | Phe | Glu | Asn | Val | Thr | Asp | Leu | Gln | Trp | Leu | Ile | Leu |
| | | | 100 | | | | | | 105 | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | His | Asn | Leu | Leu | Glu | Asn | Ser | Lys | Xaa | Lys | Gly | Arg | Val | Phe | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |

1605

Lys Leu Lys Gln Leu Xaa Lys Xaa Xaa
 130 135

<210> 1538

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1538

Tyr Gln Val Tyr Ser Lys Ile Gln Ala Thr Asn Thr Trp Leu Phe Leu
 1 5 10 15

Ser Ser Cys Asn Gly Asn Glu Thr Ser Leu Trp Asp Cys Lys Asn Trp
 20 25 30

Gln Trp Gly Gly Leu Thr Cys Asp His Tyr Glu Glu Ala Lys Ile Thr
 35 40 45

Cys Ser Ala His Arg Glu Pro Arg Leu Val Gly Gly Asp Ile Pro Cys
 50 55 60

Ser Gly Arg Val Glu Val Lys His Gly Asp Thr Trp Gly Ser Ile Cys
 65 70 75 80

Asp Ser Asp Phe Ser Leu Glu Ala Ala Ser Val Leu Cys Arg Glu Leu
 85 90 95

Gln Cys Gly Thr Val Val Ser Ile Leu Gly Gly Ala His Phe Gly Glu
 100 105 110

Gly Met Asp Arg Ser Gly Leu Lys Asn Ser Ser Val Glu Gly His Glu
 115 120 125

Ser Pro Ser Phe Ile Xaa Pro Val Xaa Thr Pro Pro Lys Arg Asn Leu
 130 135 140

1606

<210> 1539
<211> 85
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1539
Asn Met Ala Gly Val Glu Glu Val Ala Ala Ser Gly Ser His Leu Asn
1 5 10 15
Gly Asp Leu Asp Pro Asp Asp Arg Glu Glu Gly Ala Ala Ser Thr Ala
20 25 30
Glu Glu Xaa Ala Lys Lys Lys Arg Arg Lys Lys Lys Lys Ser Lys Gly
35 40 45
Pro Ser Ala Gly Lys Glu Ser Phe Met Phe Ser Gln Ser Pro Pro Gly
50 55 60
Thr Ala Glu Leu Phe Gly Ser Gly Pro Leu Arg Gly Pro Gly Pro Gly
65 70 75 80
Pro Gln Ser Pro Asp
85

<210> 1540
<211> 36
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (22)

1607

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1540

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Gly | Phe | Arg | Glu | Gly | Thr | Xaa | Gly | Ala | Gln | Thr | Gln | Arg | Ile |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Arg | Xaa | Arg | Val | Pro | Xaa | Asn | Trp | Lys | Met | Xaa | Phe | Glu | Pro | Ile | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Thr | Lys | Phe | | | | | | | | | | | | |
| | | | 35 | | | | | | | | | | | | |

<210> 1541

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1608

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1541

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Xaa | Ala | Xaa | Gly | Glu | Arg | Ala | Cys | Arg | Ser | Thr | Leu | Val | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Xaa | Val | Xaa | Thr | Val | Phe | Ser | Leu | Gly | Ala | Cys | Met | Glu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Ile | Leu | Leu | Asn | Arg | Leu | Leu | Gly | Ile | Ser | Leu | Tyr | Ala | Glu |
| | 35 | | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Ala | Lys | Gly | Glu | Val | Trp | Ser | Glu | Asp | Val | Arg | Lys | Leu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | His | Glu | Ser | Glu | Gly | Leu | Leu | Gly | Tyr | Ile | Tyr | Cys | Asp | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gln | Arg | Ala | Asp | Lys | Pro | His | Gln | Asp | Cys | His | Phe | Thr | Ile | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Arg | Leu | Lys | Gly | Arg | Trp | Glu | Thr | Xaa | Gln | Leu | Pro | Val | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Tyr | Ala | Gly | Ile | Phe | Pro | Val | Pro | Xaa | Arg | Glu | Phe | Ser | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Xaa | Xaa | Leu | Gly | Met | Met | Gly | Lys | Pro | Phe | Pro | Gly | Xaa | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |

1609

<210> 1542
 <211> 145
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (40)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1542
 Ala Glu Arg Thr Pro Cys Arg Arg Pro Ala Glu Met Leu Arg Leu Pro
 1 5 10 15
 Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg Val Leu Ala Pro His
 20 25 30
 Leu Thr Arg Ala Tyr Ala Lys Xaa Val Lys Phe Gly Ala Asp Ala Arg
 35 40 45
 Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala Asp Ala Val Ala Val
 50 55 60
 Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile Glu Gln Ser Trp Gly
 65 70 75 80
 Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Asp
 85 90 95
 Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys Leu Val Gln Asp Val
 100 105 110
 Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly Thr Thr Thr Ala Thr
 115 120 125
 Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe Glu Lys Ile Ser Lys
 130 135 140
 Gly
 145

<210> 1543
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 1543
 Lys Phe Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu
 1 5 10 15

1610

Leu Ala Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val
20 25 30

Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val
35 40 45

Thr Val Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly
50 55 60

Ala Lys Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly
65 70 75 80

Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu
85 90 95

Gly Phe Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg
100 105 110

Gly Val Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln
115 120 125

Ser Lys Pro Val Thr Thr Pro
130 135

<210> 1544

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

1611

<400> 1544

Cys Glu Phe Lys Arg Val Pro Gln Cys Pro Ser Gly Arg Val Tyr Val
 1 5 10 15

Leu Lys Phe Lys Ala Gly Ser Lys Arg Leu Phe Phe Trp Met Gln Glu
 20 25 30

Pro Lys Thr Asp Gln Asp Glu Glu His Cys Arg Lys Val Asn Glu Leu
 35 40 45

Ser Gly Thr Thr Pro Arg Cys Leu Gly His Trp Gly Pro Ala Glu Gln
 50 55 60

Arg Pro Arg Xaa Leu Cys Ala Xaa Arg Leu Arg Trp Xaa Ala Glu Xaa
 65 70 75 80

Ala Gly Glu Thr

<210> 1545

<211> 22

<212> PRT

<213> Homo sapiens

<400> 1545

Tyr Leu Arg Leu Ile Tyr Ser Thr Ser Ile Thr Leu Leu Pro Ile Ser
 1 5 10 15

Asn Asn Val Lys Ile Lys
 20

<210> 1546

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

1612

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1613

<221> SITE
 <222> (102)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (107)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (108)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (110)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (111)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1546
 Pro Ser Ala Ala Ala Gly Asp Leu Gln Arg Thr Ala Ala Met Gly Ala
 1 5 10 15

 His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Xaa Pro Asp Pro
 20 25 30

 Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe Pro Glu Arg Lys
 35 40 45

 Xaa Arg Xaa Met Val Ala Thr Xaa Xaa Xaa Met Met Asp Ala His Xaa
 50 55 60

 Ser Ser Xaa Cys Gly Xaa Thr Ala Pro Thr Asn Ser Ser Gly Cys Ser
 65 70 75 80

 Ile Xaa Thr Leu Xaa Leu Pro Pro Leu Pro Trp Leu Ala Asn Gln Glu
 85 90 95

 Arg Asp Lys Xaa Glu Xaa Xaa Gln Thr Pro Xaa Xaa Phe Xaa Xaa Pro
 100 105 110

1614

<210> 1547

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1547

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Val | Ser | Ala | Val | Met | Ala | Phe | Leu | Ala | Ser | Gly | Pro | Tyr | Leu | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Gln | Gln | Lys | Val | Leu | Arg | Leu | Tyr | Lys | Arg | Ala | Leu | Arg | His | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ser | Trp | Cys | Val | Gln | Arg | Asp | Lys | Tyr | Arg | Tyr | Phe | Ala | Cys | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Arg | Ala | Arg | Phe | Glu | Glu | His | Lys | Asn | Glu | Lys | Asp | Met | Ala | Lys |
| | 50 | | | | | | 55 | | | | 60 | | | | |
| Ala | Thr | Gln | Leu | Leu | Lys | Glu | Ala | Glu | Glu | Glu | Phe | Trp | Tyr | Arg | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Pro | Gln | Pro | Tyr | Ile | Phe | Pro | Asp | Ser | Pro | Gly | Gly | Thr | Ser | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Arg | Tyr | Asp | Cys | Tyr | Lys | Val | Pro | Glu | Trp | Cys | Leu | Asp | Asp | Trp |
| | | | 100 | | | | | | 105 | | | | 110 | | |
| His | Pro | Ser | Glu | Lys | Ala | Met | Tyr | Pro | Asp | Tyr | Phe | Ala | Lys | Arg | Glu |
| | | 115 | | | | | | 120 | | | | 125 | | | |
| Gln | Trp | Lys | Lys | Leu | Arg | Glu | Gly | Lys | Leu | Gly | Thr | Arg | Gly | | |
| | 130 | | | | | | 135 | | | | 140 | | | | |

<210> 1548

<211> 98

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1615

<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1616

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1548

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Tyr | Xaa | Leu | Gly | Phe | Leu | Xaa | Leu | Xaa | Xaa | Arg | Leu | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Ala | Lys | Arg | Xaa | His | Asp | Glu | Leu | Gly | Asn | Glu | Arg | Pro | Xaa |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Tyr | Met | Xaa | Glu | His | Asn | Gln | Leu | Asn | Gly | Trp | Xaa | Ser | Asp | Glu |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asp | Trp | Asn | Glu | Lys | Leu | Tyr | Pro | Val | Trp | Lys | Arg | Xaa | Asp | Met |
| | | | 50 | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Glu | Lys | Leu | Leu | Glu | Gly | Arg | Pro | Val | Cys | Lys | Ala | Val | Leu |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Asp | Xaa | Pro | Thr | Leu | Gly | Gly | Leu | Lys | Xaa | Asn | Ile | Xaa | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Xaa Thr

<210> 1549

<211> 138

<212> PRT

<213> Homo sapiens

1617

<220>
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<400> 1549
Gly Cys Ser Leu Glu Gln Arg Ser Phe Ile Ser Val Arg Leu Leu Ser
1 5 10 15
Tyr Leu Ser Ala Cys Arg His Pro Met Glu Asp Ser Met Asp Met Asp
20 25 30
Met Ser Pro Leu Arg Pro Gln Asn Tyr Leu Phe Gly Cys Glu Leu Lys
35 40 45
Ala Asp Lys Asp Tyr His Phe Lys Val Asp Asn Xaa Glu Asn Glu His
50 55 60
Gln Leu Ser Leu Arg Thr Val Xaa Xaa Gly Ala Gly Ala Lys Asp Glu
65 70 75 80

1618

Leu His Ile Val Glu Ala Glu Ala Met Asn Tyr Glu Gly Ser Pro Ile
85 90 95

Lys Val Thr Leu Ala Thr Leu Lys Met Ser Val Gln Pro Thr Val Phe
100 105 110

Pro Leu Gly Ala Leu Asn Asn Thr Thr Xaa Xaa Leu Lys Val Glu Xaa
115 120 125

Trp Phe Arg Ala Met Pro Ile Xaa Gly Gln
130 135

<210> 1550
<211> 51
<212> PRT
<213> Homo sapiens

<400> 1550
Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro
1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys
20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Val Glu Glu Ala Glu Met Glu Glu
35 40 45

Thr Pro Cys
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<210> 1551
<211> 73
<212> PRT
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1619

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1 5 10 15
Arg Asn Ser Arg Val Asp Pro Arg Val Arg Xaa Gly Gly Glu Gln Val
20 25 30
Ser Ser Thr Ile Xaa Gly Leu Ser Gly Pro Pro Ser Arg Arg Gly Pro
35 40 45
Phe Pro Leu Ala Trp Val Ile Leu Phe Leu Leu Glu Ala Gln Xaa Gly
50 55 60
Pro Trp Xaa Leu Leu Pro Ser Ala His
65 70

<210> 1552
<211> 131
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1620

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<400> 1552
Asn Ser Ala Xaa Xaa Glu Leu Leu Thr Gln Pro Gly Asp Trp Thr Leu
 1             5             10             15

Phe Val Pro Thr Asn Asp Ala Phe Lys Gly Met Thr Ser Glu Glu Lys
          20             25             30

Glu Ile Leu Ile Arg Asp Lys Asn Ala Leu Gln Asn Ile Ile Leu Tyr
          35             40             45

His Leu His Gln Glu Phe Ser Leu Glu Lys Asp Leu Asn Leu Val Leu
          50             55             60

Leu Thr Phe Leu Lys Thr Thr Gln Gly Ser Lys Ile Phe Leu Glu Gly
          65             70             75             80

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1621

Ser Glu Met Val Thr Leu Leu Val Asn Gly Phe Gly Asn Pro Lys Xaa
 85 90 95

Ser Asp Ile His Gly Pro Pro Xaa Val Val Ile Ser Cys Cys Arg Leu
 100 105 110

Asn Xaa Xaa Phe Pro Ala Xaa Thr Pro Phe Gly Xaa Gly Ser Thr Gly
 115 120 125

Xaa Asp Thr
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<400> 1553
 Trp Ile Xaa Arg Ala Ala Gly Ile Arg His Glu Val Ala Asp Thr Met
 1 5 10 15

Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu Ser Cys
 20 25 30

Leu Met Leu Leu Ser Gln Val Gln Gly Glu Glu Pro Gln Arg Glu Leu
 35 40 45

Pro Ser Ala Arg Ile Arg Xaa Pro Lys Gly Ser Lys Ala Tyr Gly Ser

1622

50 55 60
 His Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser Trp Thr Asp Ala Asp
 65 70 75 80
 Leu Ala Cys Gln Lys Arg Pro Ser Gly Asn Leu Val Ser Xaa Leu Ser
 85 90 95
 Gly Ala Glu Gly Ser Phe Xaa Pro Pro Trp
 100 105

<210> 1554

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<400> 1554

Ala Thr Phe Pro Arg Glu Trp Leu Cys Asp Arg His Leu Arg Glu Lys
 1 5 10 15

Met Phe Ser Ser Val Ala His Leu Ala Arg Ala Asn Pro Phe Asn Thr
 20 25 30

Pro His Leu Gln Leu Val His Asp Gly Leu Gly Asp Leu Arg Ser Ser
 35 40 45

Ser Pro Gly Pro Thr Gly Gln Pro Arg Arg Pro Arg Asn Leu Ala Ala
 50 55 60

Ala Ala Val Glu Glu Gln Tyr Ser Cys Asp Tyr Gly Ser Gly Arg Phe
 65 70 75 80

Phe Ile Leu Cys Gly Leu Gly Gly Ile Ile Ser Cys Gly Thr Thr His
 85 90 95

Thr Ala Leu Val Pro Leu Asp Leu Val Lys Cys Arg Xaa Arg Phe Val
 100 105 110

Phe Ala Cys Trp Thr
 115

<210> 1555

1623

<211> 164
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Glu Lys Lys Val Glu Arg Gln Thr Glu Leu Lys Arg Lys Phe Glu Gln
 1 5 10 15

Met Lys Gln Asp Arg Ile Thr Arg Tyr Gln Gly Val Asn Leu Tyr Val
 20 25 30

Lys Asn Leu Asp Asp Gly Ile Asp Asp Glu Arg Leu Arg Lys Glu Phe
 35 40 45

Ser Pro Phe Gly Thr Ile Thr Ser Ala Lys Val Met Met Glu Gly Gly
 50 55 60

Arg Ser Lys Gly Phe Gly Phe Val Cys Phe Ser Ser Pro Glu Xaa Ala
 65 70 75 80

Thr Lys Ala Val Thr Xaa Met Asn Gly Arg Ile Val Ala Thr Lys Pro
 85 90 95

Leu Tyr Val Ala Leu Ala Gln Arg Lys Glu Glu Arg Gln Ala His Leu
 100 105 110

Thr Asn Gln Tyr Met Gln Arg Met Ala Ser Val Arg Xaa Val Pro Asn
 115 120 125

Pro Val Ile Asn Pro Tyr Gln Pro Ala Pro Pro Ser Gly Tyr Phe Met
 130 135 140

Ala Ala Ile Pro Gln Thr Gln Asn Val Leu His Thr Ile Leu Leu Ala
 145 150 155 160

Lys Leu Leu Asn

1624

<210> 1556
<211> 166
<212> PRT
<213> Homo sapiens

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1625

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<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1556

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Xaa | Leu | Thr | Leu | Thr | Xaa | Gly | Xaa | Lys | Xaa | Xaa | Xaa | Xaa | Thr | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ala | Ala | Ala | Leu | Ala | Thr | Ser | Gly | Ser | Pro | Gly | Pro | Val | Arg | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Arg | Ala | Gly | Thr | Ser | Glu | Phe | Leu | Asn | Lys | Val | Thr | Glu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Glu | Asp | Gly | Gln | Ser | Thr | Ser | Glu | Leu | Ile | Gly | Gln | Phe | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Phe | Tyr | Ser | Ala | Phe | Leu | Val | Ala | Asp | Lys | Val | Ile | Val | Thr | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | His | Asn | Asn | Asp | Thr | Gln | His | Ile | Trp | Glu | Ser | Asp | Ser | Asn | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Ser | Val | Ile | Ala | Asp | Pro | Arg | Gly | Asn | Thr | Leu | Gly | Arg | Gly | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Ile | Thr | Leu | Val | Leu | Lys | Glu | Glu | Ala | Ser | Asp | Tyr | Leu | Glu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Thr | Ile | Lys | Asn | Leu | Val | Lys | Lys | Tyr | Ser | Gln | Phe | Ile | Asn | Phe |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Pro | Ile | Tyr | Val | Trp | Xaa | Ser | Lys | Thr | Glu | Thr | Val | Xaa | Glu | Pro | Met |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Glu | Glu | Glu | Gly | Ala | Ala | | | | | | | | | | |
| | | | | 165 | | | | | | | | | | | |

<210> 1557

<211> 127

<212> PRT

<213> Homo sapiens

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1627

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<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (108)

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<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (120)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1557

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Asn | Val | Val | Glu | Ala | Gln | Phe | Asp | Ser | Arg | Val | Arg | Ala | Thr | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Ser | Xaa | Xaa | Xaa | Tyr | Asn | Lys | Trp | Glu | Thr | Ile | Glu | Ala | Trp | Thr |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gln | Val | Ala | Thr | Xaa | Asn | Pro | Ala | Leu | Ile | Ser | Arg | Ser | Val | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Thr | Phe | Glu | Gly | Arg | Ala | Ile | Tyr | Leu | Leu | Lys | Val | Gly | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Gln | Asn | Lys | Pro | Ala | Ile | Phe | Met | Asp | Cys | Gly | Phe | Pro | Met |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Xaa | Xaa | Trp | Ile | Ser | Pro | Cys | Ile | Xaa | Pro | Val | Gly | Phe | Xaa | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |

1628

Xaa Ala Val Pro Phe Leu Xaa Thr Phe Xaa Xaa Xaa Leu Thr Asn Phe
 100 105 110

Xaa Asn Asn Leu Xaa Phe Tyr Xaa Pro Ala Leu Trp Pro Gln Tyr
 115 120 125

<210> 1558

<211> 109

<212> PRT

<213> Homo sapiens

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<222> (107)

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<222> (108)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1558

Lys Ala Gly Ala Ala Ala Gly Gly Pro Gly Val Ser Gly Val Cys Val
 1 5 10 15

Cys Lys Ser Arg Tyr Pro Val Cys Gly Ser Asp Gly Thr Thr Tyr Pro
 20 25 30

Ser Gly Cys Gln Leu Arg Ala Ala Ser Gln Arg Ala Glu Ser Arg Gly
 35 40 45

Glu Lys Ala Ile Thr Gln Val Ser Lys Gly Thr Cys Glu Gln Gly Pro
 50 55 60

Ser Ile Val Thr Pro Pro Lys Asp Ile Trp Asn Val Thr Gly Ala Xaa
 65 70 75 80

Val Tyr Leu Ser Cys Glu Val Ile Gly Ile Pro Thr Pro Val Leu Ile
 85 90 95

1629

Trp Asn Lys Val Xaa Arg Gly His Tyr Gly Xaa Xaa Arg
 100 105

<210> 1559

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1559

Gly Leu Arg Gly His Leu Arg Ser Ser Gly Ser Ser Ile Trp Asn Tyr
 1 5 10 15

Ile Lys Phe Arg Lys His Val Ser Arg Tyr Asp Ser Arg Thr Thr Ile
 20 25 30

Phe Ser Pro Glu Gly Arg Leu Tyr Gln Val Glu Tyr Ala Met Glu Ala
 35 40 45

Ile Gly His Ala Gly Thr Cys Leu Gly Ile Leu Ala Asn Asp Gly Val
 50 55 60

Leu Leu Ala Ala Glu Arg Arg Asn Ile His Lys Leu Leu Asp Glu Val
 65 70 75 80

Phe Phe Ser Glu Lys Ile Tyr Lys Leu Asn Glu Asp Met Ala Cys Ser
 85 90 95

Val Ala Gly Ile Thr Phe
 100

<210> 1560

<211> 159

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1560

Ser Thr His Ala Ser Ala Ala His Pro Ser Thr Leu Thr His Pro Gln
 1 5 10 15

Arg Arg Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Asp
 20 25 30

1630

Lys Pro Arg Pro Met Pro Met Asp Thr Ser Val Tyr Glu Ser Pro Tyr
 35 40 45
 Ser Asp Pro Glu Glu Leu Lys Asp Lys Lys Leu Phe Leu Lys Arg Asp
 50 55 60
 Asn Leu Leu Ile Ala Asp Ile Glu Leu Gly Cys Gly Asn Phe Gly Ser
 65 70 75 80
 Val Arg Gln Gly Val Tyr Arg Met Arg Lys Lys Gln Ile Asp Val Ala
 85 90 95
 Ile Lys Val Leu Lys Gln Gly Thr Glu Lys Ala Asp Thr Glu Glu Met
 100 105 110
 Met Arg Glu Ala Gln Ile Met His Gln Leu Asp Asn Pro Tyr Ile Val
 115 120 125
 Arg Leu Ile Gly Val Cys Gln Ala Glu Ala Leu Met Leu Val Met Glu
 130 135 140
 Met Xaa Gly Ala Gly Ala Ala Gln Val Pro Gly Arg Gln Glu Gly
 145 150 155

<210> 1561

<211> 155

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (140)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1561

Arg Ala His Glu Asn Glu Ile Thr Lys Val Arg Lys Val Thr Phe Asn
 1 5 10 15
 Gly Leu Asn Gln Met Ile Val Ile Glu Leu Gly Thr Asn Pro Leu Lys
 20 25 30
 Ser Ser Gly Ile Glu Asn Gly Ala Phe Gln Gly Met Lys Lys Leu Ser
 35 40 45

1631

Tyr Ile Arg Ile Ala Asp Thr Asn Ile Thr Ser Ile Pro Gln Gly Leu
 50 55 60
 Pro Pro Ser Leu Thr Glu Leu His Leu Asp Gly Asn Lys Ile Ser Arg
 65 70 75 80
 Val Asp Ala Ala Ser Leu Lys Gly Leu Asn Asn Leu Ala Lys Leu Gly
 85 90 95
 Leu Ser Phe Asn Ser Ile Ser Ala Val Asp Asn Gly Ser Leu Ala Asn
 100 105 110
 Thr Pro His Leu Arg Glu Leu His Leu Asp Asn Asn Lys Leu Thr Arg
 115 120 125
 Val Pro Gly Gly Leu Gln Ser Ile Lys Tyr Xaa Xaa Gly Gly Tyr Leu
 130 135 140
 His Asn Asn His Ile Ser Val Val Gly Ser Lys
 145 150 155

<210> 1562

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1562

Xaa Asn Gln Asn Ser Asn Gly Leu Val Phe Leu Leu Trp Gly Ser Tyr
 1 5 10 15
 Ala Gln Lys Lys Gly Ser Ala Ile Asp Arg Lys Arg His His Val Leu
 20 25 30
 Gln Thr Ala His Pro Ser Pro Leu Ser Val Tyr Arg Gly Phe Phe Gly
 35 40 45
 Cys Arg His Phe Ser Lys Thr Asn Glu Leu Leu Gln Lys Ser Gly Lys
 50 55 60
 Lys Pro Ile Asp Trp Lys Glu Leu
 65 70

1632

<210> 1563
<211> 110
<212> PRT
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<220>
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<400> 1563
Arg Thr Arg Gly Arg Leu Leu Gly His Leu Lys Glu Thr Trp Gly His
1 5 10 15
Pro Arg Arg Ala Ser Trp Val Val Arg Ser Arg Arg Cys Arg His Cys
20 25 30
Leu Cys Phe Met Arg Lys Met Leu Ala Ala Val Ser Arg Val Leu Ser
35 40 45
Gly Ala Ser Gln Lys Pro Ala Ser Arg Val Leu Val Ala Ser Arg Asn
50 55 60
Phe Ala Asn Asp Ala Thr Phe Glu Ile Xaa Lys Cys Asp Leu His Arg
65 70 75 80
Leu Glu Glu Ala Leu Leu Ser Gln Gln Cys Ser Pro Arg Glu Asp Gly
85 90 95
Leu Lys Tyr Tyr Arg Met Met Xaa Thr Val Pro Glu Trp Asn
100 105 110

<210> 1564
<211> 95
<212> PRT
<213> Homo sapiens

<220>
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1633

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 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1564
 Leu His Ser Xaa Cys Thr Arg Arg Gly Ser Gly Ser Leu Arg Leu Cys
 1 5 10 15

 Ser Val Ala Arg Val Gly Gln Arg Arg Met Thr Ser Ala Ala Met Ser
 20 25 30

 Lys Pro His Ser Glu Xaa Gly Thr Ala Phe Ile Gln Thr Gln Xaa Leu
 35 40 45

 His Ala Xaa Met Ala Asp Thr Phe Leu Glu His Met Xaa Arg Leu Asp
 50 55 60

1634

Ile Asp Ser Pro Pro Xaa Thr Gly Arg Asn Thr Gly Ile Ile Cys Thr
 65 70 75 80

Ile Gly Pro Ala Ser Arg Ser Xaa Gly Asp Gly Xaa Gly Xaa Asp
 85 90 95

<210> 1565

<211> 50

<212> PRT

<213> Homo sapiens

<220>

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<222> (29)

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<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1565

Pro Thr Met Ala Ala Ile Arg Lys Lys Leu Val Ile Val Gly Asp Gly
 1 5 10 15

Ala Cys Gly Lys Thr Cys Leu Leu Ile Val Phe Ser Xaa Asp Gln Phe
 20 25 30

Pro Glu Val Tyr Xaa Pro Thr Val Leu Xaa Glu Leu Tyr Cys Ala His
 35 40 45

Xaa Gly
 50

<210> 1566

<211> 161

1635

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1566

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Met | Phe | Asn | Ile | Arg | Asn | Ile | Gly | Lys | Thr | Leu | Val | Thr | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Gln | Gly | Thr | Lys | Ile | Ala | Ser | Asp | Gly | Leu | Lys | Gly | Arg | Val | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Val | Ser | Leu | Ala | Asp | Leu | Gln | Asn | Asp | Glu | Val | Ala | Phe | Arg | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Lys | Leu | Ile | Thr | Glu | Asp | Val | Gln | Gly | Lys | Asn | Cys | Leu | Thr | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | His | Gly | Met | Asp | Leu | Thr | Arg | Asp | Lys | Met | Cys | Ser | Met | Val | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Trp | Gln | Thr | Met | Ile | Glu | Ala | His | Val | Asp | Val | Lys | Thr | Thr | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Tyr | Leu | Leu | Arg | Leu | Phe | Cys | Val | Gly | Phe | Thr | Lys | Lys | Arg | Asn |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Asn | Gln | Ile | Arg | Lys | Thr | Ser | Tyr | Ala | Gln | His | Gln | Gln | Val | Arg | Gln |
| | | 115 | | | | | | 120 | | | | 125 | | | |
| Ile | Arg | Lys | Lys | Met | Met | Glu | Ile | Met | Thr | Arg | Glu | Val | Gln | Thr | Asn |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Asp | Leu | Lys | Glu | Val | Val | Asn | Lys | Leu | Ile | Xaa | Asp | Ala | Leu | Glu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |

Thr

<210> 1567

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1567

Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Cys Gly Arg

1636

1 5 10 15
 Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly Thr Ser Pro
 20 25 30
 Gly Pro Arg Gln Ser Pro Ala Arg Leu Val Ala Met Pro Arg Lys Ile
 35 40 45
 Glu Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg Arg Lys Asp Ala Lys
 50 55 60
 Ser Val Lys Ile Lys Lys Asn Lys Asp Asn Val Lys Phe Lys Val Arg
 65 70 75 80
 Cys Ser Arg Tyr Leu Tyr Thr Leu Val Ile Thr Asp Lys Glu Lys Ala
 85 90 95
 Glu Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu Ala Val Lys Glu Leu
 100 105 110
 Lys

<210> 1568

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1568

Gly Cys Asn Tyr Gly Lys Pro Xaa His His Gly Val Asn Gln Leu Lys
 1 5 10 15
 Phe Ala Arg Ser Leu Gln Ser Xaa Ala Glu Glu Arg Ala Gly Arg His
 20 25 30

1637

Xaa Gly Ala Leu Arg Val Leu Asn Ser Tyr Trp Val Gly Glu Asp Ser
 35 40 45

<210> 1569

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1569

Gly Thr Ser Glu Arg Xaa Glu His Ala Met Lys Ala Ser Gly Thr Leu
 1 5 10 15

Arg Glu Tyr Lys Val Val Gly Arg Cys Leu Pro Thr Pro Lys Cys His
 20 25 30

Thr Pro Pro Leu Tyr Arg Met Arg Ile Phe Ala Pro Asn His Val Val
 35 40 45

Ala Lys Ser Arg Phe Trp Tyr Phe Val Ser Gln Leu Lys Lys Met Lys
 50 55 60

Lys Ser Ser Gly Glu Ile Val Tyr Cys Gly Gln Val Phe Glu Lys Ser
 65 70 75 80

Pro Leu Arg Val Lys Asn Phe Gly Ile Trp Leu Arg Tyr Asp Ser Arg
 85 90 95

Ser Gly Thr His Asn Met Xaa Arg Glu Xaa Arg Asp Leu Thr Asn Ala
 100 105 110

1638

Gly Ala Val Asn Gln Cys Asn Gly
 115 120

<210> 1570

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1570

Cys Pro Pro Leu Trp Gln Glu Glu Val Trp Leu Asp Pro Asn Glu Thr
 1 5 10 15

Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys Leu Ile
 20 25 30

Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser Arg Ala
 35 40 45

Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Xaa His Met Gly
 50 55 60

Ile Val Ser Gly Lys Val Gln Pro Met Pro Glu Cys Gln Xaa Arg Ser
 65 70 75 80

His Gly Leu Arg Lys
 85

<210> 1571

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring L-amino acids

1639

<400> 1571

Phe Ala Lys Met Thr Asn Thr Lys Gly Lys Arg Arg Gly Thr Arg Tyr
 1 5 10 15

Met Phe Ser Arg Pro Phe Arg Lys His Gly Val Val Pro Leu Ala Thr
 20 25 30

Tyr Met Arg Ile Tyr Lys Lys Gly Asp Ile Val Asp Ile Lys Gly Met
 35 40 45

Gly Thr Val Gln Lys Gly Met Pro His Lys Cys Tyr His Gly Lys Thr
 50 55 60

Gly Arg Val Tyr Asn Val Thr Gln His Ala Val Gly Ile Val Val Asn
 65 70 75 80

Lys Gln Val Lys Gly Lys Ile Leu Ala Lys Arg Ile Asn Val Arg Ile
 85 90 95

Glu His Ile Lys His Ser Lys Ser Arg Asp Ser Phe Leu Lys Arg Val
 100 105 110

Lys Glu Asn Asp Gln Lys Lys Lys Glu Ala Lys Glu Lys Gly Thr Trp
 115 120 125

Val Gln Leu Lys Arg Xaa Pro
 130 135

<210> 1572

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1640

<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1572
Thr Ala Thr Pro Ala Asn Xaa Xaa Leu Pro Trp Gly Xaa Lys Lys Xaa
1 5 10 15
Ala Arg Arg Ser Lys Ile Xaa Ser Phe Val Xaa Val Cys Xaa Tyr Asn
20 25 30

1641

His Leu Met Pro Xaa Arg Tyr Ser Val Xaa Tyr Ser Pro Trp Gly Lys
 35 40 45

Ala Val Arg Ser Leu Gly Cys Leu Pro Xaa Phe Leu Ala Leu Lys Arg
 50 55 60

Xaa Ala Arg Arg Xaa Pro Arg
 65 70

<210> 1573

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1573

Ala Ala Ala Lys Gly Ala Ala Ala Met Ser Ala His Leu Gln Trp Met
 1 5 10 15

Val Val Arg Asn Cys Ser Ser Phe Leu Ile Lys Arg Asn Lys Gln Thr
 20 25 30

Tyr Ser Thr Glu Pro Asn Asn Leu Lys Ala Arg Asn Ser Phe Arg Tyr
 35 40 45

Asn Gly Leu Ile His Arg Lys Thr Val Gly Xaa Glu Pro Xaa Ala Asp
 50 55 60

Gly Lys Xaa Val
 65

<210> 1574

<211> 127

1642

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1574

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Met | Xaa | Pro | Ala | Lys | Lys | Gly | Gly | Glu | Lys | Lys | Lys | Gly | Arg |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Ile | Asn | Glu | Val | Val | Thr | Arg | Glu | Tyr | Thr | Ile | Asn | Ile | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Ile | His | Gly | Val | Gly | Phe | Lys | Lys | Arg | Ala | Pro | Arg | Ala | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Ile | Arg | Lys | Phe | Ala | Met | Lys | Glu | Met | Gly | Thr | Pro | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ile | Asp | Thr | Arg | Leu | Asn | Lys | Ala | Val | Trp | Ala | Lys | Gly | Ile | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Pro | Tyr | Arg | Ile | Arg | Val | Arg | Leu | Ser | Arg | Lys | Arg | Asn | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Glu | Asp | Ser | Pro | Asn | Lys | Leu | Tyr | Thr | Leu | Val | Thr | Tyr | Val | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Val | Thr | Thr | Phe | Lys | Asn | Leu | Gln | Thr | Val | Asn | Val | Asp | Glu | Asn | |
| | | | 115 | | | | 120 | | | | | | 125 | | |

<210> 1575

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1643

<221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (29)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (40)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (49)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (65)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (82)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (97)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1575
 Trp Phe Pro Arg Ala Ala Gly Phe Arg His Xaa Xaa Val Gln Ile Arg
 1 5 10 15

 Ala Xaa Glu Arg Lys Gly Thr Ser Ser Phe Gly Lys Xaa Arg Asn Lys
 20 25 30

 Thr His Thr Leu Cys Arg Arg Xaa Gly Ser Lys Ala Tyr His Leu Gln
 35 40 45

 Xaa Ser Thr Cys Gly Lys Phe Gly Tyr Pro Ala Lys Arg Lys Arg Lys
 50 55 60

 Xaa Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr Gly Thr Gly
 65 70 75 80

 Arg Xaa Arg His Leu Lys Phe Val Tyr Arg Arg Phe Arg His Gly Phe

1644

85 90 95

Xaa Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val Ala Ala Ser
 100 105 110

Ser Ser Ser
 115

<210> 1576
 <211> 121
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (108)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (114)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (116)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1576
 Gly Arg Arg Ser Glu Met Thr Lys Gly Thr Ser Ser Phe Gly Lys Arg
 1 5 10 15

Arg Asn Lys Thr His Thr Leu Cys Arg Arg Cys Gly Ser Lys Ala Tyr
 20 25 30

His Leu Gln Lys Ser Thr Cys Gly Lys Cys Gly Tyr Pro Ala Lys Arg
 35 40 45

Lys Arg Lys Tyr Asn Trp Ser Ala Lys Ala Lys Arg Arg Asn Thr Thr
 50 55 60

Gly Thr Gly Arg Met Arg His Leu Lys Ile Val Tyr Arg Arg Phe Arg
 65 70 75 80

His Gly Phe Arg Glu Gly Thr Thr Pro Lys Pro Lys Arg Ala Ala Val
 85 90 95

Ala Ala Phe Gln Phe Ile Phe Lys Asn Val Asn Xaa Phe Ser His Ala
 100 105 110

1645

Ile Xaa Cys Xaa Gly Val Leu Lys Asn
 115 120

<210> 1577

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1577

Gly Ile Val Gly Lys Tyr Gly Thr Arg Tyr Gly Ala Ser Leu Arg Lys
 1 5 10 15

Met Val Lys Lys Ile Glu Ile Ser Gln His Ala Lys Tyr Thr Cys Ser
 20 25 30

Phe Cys Gly Lys Thr Lys Met Lys Arg Arg Ala Val Gly Ile Trp His
 35 40 45

Cys Gly Ser Cys Met Lys Thr Val Xaa Gly Xaa Ala Xaa
 50 55 60

<210> 1578

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

1646

<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1578
Glu Leu Gly Lys Gly Lys Met Glu Lys Pro Ser Pro Tyr Pro Ala Gln
1 5 10 15
Gly Pro Cys Ile Ile Tyr Asn Glu Asp Asn Gly Ile Ile Lys Ala Phe
20 25 30
Gln Lys His Pro Trp Asn Tyr Ser Ala Xaa Met Xaa Ser Lys Leu Lys
35 40 45
His Phe Xaa Ser Leu Leu Pro Gly Gly Ala Cys Gly Asp Val Xaa Gly
50 55 60
Ile Gly Xaa Glu Met Ala Phe Pro Gly Xaa
65 70

<210> 1579
<211> 98
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (2)

1647

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1579

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Xaa | Met | Ala | Cys | Ala | Arg | Pro | Leu | Ile | Ser | Val | Tyr | Ser | Glu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Ser | Ser | Gly | Lys | Asn | Val | Thr | Leu | Pro | Ala | Val | Phe | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ile | Arg | Pro | Asp | Ile | Val | Asn | Phe | Val | His | Thr | Asn | Leu | Arg | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Asn | Arg | Gln | Pro | Tyr | Ala | Val | Ser | Glu | Leu | Ala | Gly | His | Gln | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ala | Glu | Ser | Trp | Gly | Thr | Gly | Arg | Ala | Val | Ala | Arg | Ile | Pro | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Gly | Gly | Gly | Thr | Xaa | Arg | Ser | Gly | Xaa | Gly | Ala | Phe | Gly | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |

Met Cys

<210> 1580

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

1648

<220>
 <221> SITE
 <222> (19)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (50)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (55)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (64)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (71)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1580
 Leu Ser Leu Xaa Gly Lys Lys Lys Lys Arg Leu Arg Val Asp Lys Trp
 1 5 10 15
 Trp Gly Xaa Arg Lys Glu Leu Ala Thr Val Arg Thr Ile Cys Ser His
 20 25 30
 Val Gln Asn Met Ile Lys Gly Val Thr Leu Gly Phe Arg Tyr Lys Met
 35 40 45
 Arg Xaa Val Tyr Ala His Xaa Pro Ile Asn Val Val Ile Gln Glu Xaa
 50 55 60
 Gly Ser Ile Val Glu Ile Xaa Xaa
 65 70

<210> 1581
 <211> 153
 <212> PRT

1649

<213> Homo sapiens

<400> 1581

Ala Ile Met Gly Arg Met His Ala Pro Gly Lys Gly Leu Ser Gln Ser
 1 5 10 15
 Ala Leu Pro Tyr Arg Arg Ser Val Pro Thr Trp Leu Lys Leu Thr Ser
 20 25 30
 Asp Asp Val Lys Glu Gln Ile Tyr Lys Leu Ala Lys Lys Gly Leu Thr
 35 40 45
 Pro Ser Gln Ile Gly Val Ile Leu Arg Asp Ser His Gly Val Ala Gln
 50 55 60
 Val Arg Phe Val Thr Gly Asn Lys Ile Leu Arg Ile Leu Lys Ser Lys
 65 70 75 80
 Gly Leu Ala Pro Asp Leu Pro Glu Asp Leu Tyr His Leu Ile Lys Lys
 85 90 95
 Ala Val Ala Val Arg Lys His Leu Glu Arg Asn Arg Lys Asp Lys Asp
 100 105 110
 Ala Lys Phe Arg Leu Ile Leu Ile Glu Ser Arg Ile His Arg Leu Ala
 115 120 125
 Arg Tyr Tyr Lys Thr Lys Arg Val Leu Pro Pro Asn Trp Lys Tyr Glu
 130 135 140
 Ser Ser Thr Ala Ser Ala Leu Val Ala
 145 150

<210> 1582

<211> 129

<212> PRT

<213> Homo sapiens

<400> 1582

Gly Pro Ala Asn Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala
 1 5 10 15
 Ala Arg Val Ile Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe
 20 25 30
 His Thr Asn Lys Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys
 35 40 45
 Lys Leu Arg Asn Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg

1650

| | | | | | |
|---|-----|----|-----|----|-----|
| 50 | | 55 | | 60 | |
| Ile Gln Arg Gly Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu | | | | | |
| 65 | | 70 | | 75 | 80 |
| Glu Arg Glu Arg Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp | | | | | |
| | 85 | | 90 | | 95 |
| Gln Glu Ile Ile Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu | | | | | |
| | 100 | | 105 | | 110 |
| Leu Asp Phe Gly Ser Leu Ser Asn Leu Gln Ser Leu Ser Leu Gln Leu | | | | | |
| | 115 | | 120 | | 125 |

Gly

<210> 1583
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1583
 Asn Asn Gly Arg Ala Lys Lys Gly Arg Gly His Val Gln Pro Ile Arg
 1 5 10 15
 Cys Thr Asn Cys Ala Arg Cys Val Pro Lys Asp Lys Ala Ile Lys Lys
 20 25 30
 Phe Val Ile Arg Asn Ile Val Glu Ala Ala Ala Val Arg Asp Ile Ser
 35 40 45
 Glu Ala Ser Val Phe Asp Ala Tyr Val Leu Pro Lys Leu Tyr Val Lys
 50 55 60
 Leu His Tyr Cys Val Thr Val Pro Ser Ile Ala Arg Leu Leu Gly Ile
 65 70 75 80
 Asp Pro Ala Lys Pro Gly Arg Thr Glu His Pro His His Asp Ser Asp
 85 90 95
 Leu Leu Ala Leu His Leu Arg Pro Pro Pro Lys Pro Met
 100 105

<210> 1584
 <211> 119
 <212> PRT

1651

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1584

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gln | Arg | Phe | Ile | Lys | Ile | Asp | Gly | Lys | Val | Arg | Thr | Asp | Ile | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Pro | Ala | Gly | Phe | Met | Asp | Val | Ile | Ser | Ile | Asp | Lys | Thr | Gly | Glu |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Phe | Arg | Leu | Ile | Tyr | Asp | Thr | Lys | Gly | Arg | Phe | Ala | Val | His | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Pro | Glu | Glu | Ala | Lys | Tyr | Lys | Leu | Cys | Xaa | Val | Arg | Lys | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Gly | Thr | Lys | Gly | Ile | Pro | His | Leu | Val | Thr | His | Asp | Ala | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ile | Arg | Tyr | Pro | Asp | Pro | Leu | Ile | Lys | Val | Asn | Asp | Pro | Phe | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Xaa | Arg | Leu | Ala | Arg | Leu | Leu | Ile | Ser | Ser | Ile | Ser | Thr | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Cys | Val | Trp | Xaa | Leu |
| | | | | | | 115 |

<210> 1585

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1652

<222> (14)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (26)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (41)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (74)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1585
 Gly Arg Tyr Ala Ala Lys Arg Phe Arg Lys Ala Gln Cys Xaa Ile Val
 1 5 10 15

 Glu Arg Leu Thr Asn Ser Met Met Met Xaa Gly Arg Asn Asn Gly Lys
 20 25 30

 Lys Leu Met Thr Val Arg Ile Val Xaa His Ala Phe Glu Ile Ile Arg
 35 40 45

 Leu Leu Thr Gly Xaa Glu Pro Ser Ala Gly Pro Gly Glu Arg His His
 50 55 60

 Gln His Xaa Ser Pro Gly Arg Xaa His Xaa His Trp Ala Arg Arg Asp
 65 70 75 80

 Cys

1653

<210> 1586

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1586

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Lys Asn Cys Ile Val Leu Ile Asp Ser Thr Pro Tyr Arg Gln Trp Tyr
 1             5             10             15

Glu Ser His Tyr Ala Leu Pro Leu Gly Arg Lys Lys Gly Ala Lys Leu
          20             25             30

Thr Pro Glu Glu Glu Glu Ile Leu Asn Lys Lys Arg Ser Lys Lys Ile
          35             40             45

Gln Lys Lys Tyr Asp Glu Arg Lys Lys Asn Ala Lys Ile Ser Ser Leu
          50             55             60

Leu Glu Glu Gln Phe Gln Gln Gly Lys Leu Leu Ala Cys Ile Ala Ser
 65             70             75             80

Arg Pro Gly Gln Cys Gly Arg Ala Asp Gly Tyr Val Leu Glu Gly Lys
          85             90             95

Glu Leu Glu Phe Tyr Leu Arg Lys Ile Lys Ala Arg Lys Gly Lys
          100            105            110

```

<210> 1587

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1587

```

Arg Thr Met Pro Gly Val Thr Val Lys Asp Val Asn Gln Gln Glu Phe
 1             5             10             15

```

1654

Val Arg Ala Leu Ala Ala Phe Leu Lys Lys Ser Gly Lys Leu Lys Val
20 25 30

Pro Glu Trp Val Asp Thr Val Lys Leu Ala Lys His Lys Glu Leu Ala
35 40 45

Pro Tyr Asp Glu Asn Trp Phe Tyr Thr Arg Ala Ala Ser Thr Ala Arg
50 55 60

His Leu Tyr Leu Arg Gly Gly Ala Gly Val Gly Ser Met Thr Lys Ile
65 70 75 80

Tyr Gly Gly Arg Gln Arg Asn Gly Val Met Pro Ser His Phe Ser Arg
85 90 95

Gly Ser Lys Ser Val Ala Arg Arg Xaa Leu Gln Ala Leu Gly Gly Ala
100 105 110

Glu Asn Gly Gly Xaa Gly Pro Arg Trp Arg Pro Ala Asn
115 120 125

<210> 1588

<211> 38

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

1655

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1588

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Met | Leu | Xaa | Leu | Val | Leu | Xaa | Leu | Leu | Ser | Ser | Ser | Ser | Ala | Glu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Glu | Tyr | Xaa | Gly | Leu | Ser | Ala | Asn | Gln | Cys | Ala | Val | Xaa | Ala | Lys | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Xaa | Val | Xaa | Cys | Gly | Tyr | | | | | | | | | | |
| | | | 35 | | | | | | | | | | | | |

<210> 1589

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1589

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Ala | Thr | Gln | Gly | Leu | Ser | Pro | Val | His | Thr | Pro | Gly | Asp | Gly |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Arg | Leu | His | Lys | Ala | Val | Ser | Val | Gly | Pro | Arg | Val | His | Ile | Ile | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Leu | Gln | Ile | Phe | Ser | Ser | Gly | Gln | Pro | Val | Ala | Glu | Ser | Ala | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Thr | Pro | Thr | Gly | Gly | Leu | | | | | | | | | |
| | 50 | | | | | 55 | | | | | | | | | |

<210> 1590

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1590

Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Xaa Ala

1656

1 5 10 15
Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly His Ser Ile Val Gly
 20 25 30
Phe Ala Met Tyr Tyr Phe Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu
 35 40 45
Tyr Leu Glu Asp Phe Phe Val Met Ser Asp Tyr Arg Gly Phe Gly Ile
 50 55 60
Gly Ser Glu Ile Leu Lys Asn Leu Ser Gln Val Ala Met Arg Cys Arg
 65 70 75 80
Cys Ser Ser Met His Phe Phe Gly Ser Arg Met Glu
 85 90

<210> 1591

<211> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1657

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1591

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Gly | Gly | Phe | Xaa | Ile | Thr | Xaa | Gly | Xaa | Asp | Glu | Gly | Lys | Leu | Val |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Ala | Gly | Asp | Arg | Ser | Gly | Ile | Pro | Gly | Ser | Thr | His | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Asp | Val | Ser | Gln | Lys | Val | Leu | Arg | Ser | Gln | Thr | Trp | Val | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Ala | Ser | Glu | Ala | Xaa | Ser | Arg | His | Arg | Gly | Lys | Val | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Phe | Pro | Lys | Asp | Asp | Pro | Ser | Lys | Pro | Val | His | Leu | Thr | Ala | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Tyr | Lys | Ala | Gly | Met | Thr | His | Ile | Val | Arg | Glu | Val | Asp | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Ser | Lys | Val | Asn | Lys | Lys | Glu | Gly | Gly | Gly | Gly | Cys | Asp | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Xaa | Asp | Thr | Xaa | His | Gly | Gly | Leu | Trp | Ala | Leu | Xaa | Ala | Thr | Leu |
| | | 115 | | | | | | 120 | | | | | 125 | | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asn | Pro | Arg | Xaa | Leu | Arg | Asn | Phe | Lys | Asn |
| | 130 | | | | | | 135 | | | |

<210> 1592

<211> 42

<212> PRT

1658

<213> Homo sapiens

<400> 1592

Ala Glu His Gly Asp Gln Asp Tyr Ile Trp His Cys Ile Asp Leu Phe
1 5 10 15

Leu Asp Phe Ile Thr Val Phe Arg Lys Leu Met Met Ile Leu Ala Met
20 25 30

Asn Glu Lys Asp Lys Lys Lys Glu Lys Lys
35 40

<210> 1593

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1659

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1593

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ile | Pro | Arg | Ala | Ala | Gly | Ser | Leu | Ser | Leu | Ala | Gln | Arg | Arg | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Thr | Lys | Thr | Tyr | Thr | Val | Gly | Xaa | Glu | Glu | Cys | Thr | Val | Xaa | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Leu | Ser | Ile | Pro | Cys | Lys | Leu | Gln | Ser | Gly | Thr | His | Cys | Xaa | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Gln | Leu | Leu | Gln | Gly | Xaa | Glu | Lys | Gly | Xaa | Gln | Xaa | Arg | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Cys | Leu | Pro | Arg | Glu | Pro | Gly | Leu | Gly | Thr | Trp | Gln | Xaa | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | |
|-----|-----|-----|-----|-----|
| Arg | Ser | Gln | Ile | Ala |
| | | | | 85 |

<210> 1594

<211> 183

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1660

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (152)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1594

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Arg | Gly | Ala | Gln | Arg | Asp | Thr | Arg | Glu | Pro | Thr | Met | Ala | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Glu | Pro | Leu | Ala | Ser | Gly | Ile | Leu | Leu | Leu | Leu | Trp | Leu | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Arg | Ala | Cys | Thr | Cys | Val | Pro | Pro | His | Pro | Gln | Thr | Ala | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asn | Ser | Asp | Leu | Val | Ile | Arg | Ala | Lys | Phe | Val | Gly | Thr | Pro | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Gln | Thr | Thr | Leu | Tyr | Gln | Arg | Tyr | Glu | Ile | Lys | Met | Thr | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Lys | Gly | Phe | Gln | Ala | Leu | Gly | Asp | Ala | Ala | Asp | Ile | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Tyr | Thr | Pro | Ala | Met | Glu | Ser | Val | Cys | Xaa | Tyr | Phe | His | Arg | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Asn | Arg | Ser | Glu | Glu | Phe | Leu | Ile | Xaa | Gly | Lys | Leu | Gln | Asp | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | His | Ile | Thr | Thr | Cys | Xaa | Phe | Val | Ala | Pro | Trp | Asn | Ser | Leu |
| | 130 | | | | | 135 | | | | | | 140 | | | |

1661

Ser Leu Ala Gln Arg Arg Xaa Xaa Thr Lys Thr Tyr Thr Val Gly Xaa
 145 150 155 160

Glu Glu Met His Lys Cys Phe Pro Val Tyr Pro Ser Pro Ala Asn Cys
 165 170 175

Arg Val Gly Thr His Cys Leu
 180

<210> 1595

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (151)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1595

Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser Pro Gly Ser Tyr Gln
 1 5 10 15

Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly Gln Cys Leu
 20 25 30

Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn Gly Asp Cys
 35 40 45

Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys Gly Tyr Thr
 50 55 60

Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu Cys Gln Gln
 65 70 75 80

Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu Gly Ser Phe
 85 90 95

Arg Cys Thr Val Asp Arg Gly Tyr Gln Leu Ser Ala Ala Lys Asp Gln
 100 105 110

Phe Glu Asp Ile Asp Glu Cys His Thr Val Ile Ser Val Ala His Gly
 115 120 125

1662

His Ala Arg Thr Leu Lys Leu Phe Ser Met Cys Phe Leu Thr Xaa Val
 130 135 140

Thr Glu His Leu Gly Leu Xaa Thr Leu
 145 150

<210> 1596

<211> 111

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (102)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1596

Leu Gly Ser Ser Ala Met Ala Pro Ser Arg Lys Phe Phe Val Gly Gly
 1 5 10 15

Asn Trp Lys Met Asn Gly Arg Lys Gln Ser Leu Gly Glu Leu Ile Gly
 20 25 30

Thr Leu Asn Ala Ala Lys Val Pro Ala Asp Thr Glu Val Val Cys Ala
 35 40 45

Pro Pro Thr Ala Tyr Ile Asp Phe Ala Arg Gln Lys Leu Asp Pro Lys
 50 55 60

Ile Ala Val Ala Ala Gln Asn Cys Tyr Lys Val Thr Asn Gly Ala Phe
 65 70 75 80

Thr Gly Glu Ile Ser Pro Gly Met Ile Lys Asp Cys Gly Pro Arg Gly
 85 90 95

Trp Ser Trp Gly Thr Xaa Arg Glu Ala Cys Leu Trp Gly Ile Arg
 100 105 110

<210> 1597

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

1663

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1597

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Glu | Asp | Ser | Asp | Ser | Leu | Arg | Leu | Arg | Arg | Asp | Val | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Xaa | Val | Gln | Ala | Ala | Leu | Pro | Ala | Thr | Ser | Cys | Val | Pro | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Val | Pro | Lys | Ser | His | Val | His | Pro | Arg | Ser | Ala | Leu | Ser | Leu |
| | | 35 | | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Cys | Leu | Leu | Leu | Val | His | Leu | Ser | Ile | Ala | His | Leu | His | Leu | Ala |
| | | 50 | | | | | 55 | | | | | 60 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Asn | Ala | Leu | Leu | Xaa | Gln | Pro | Tyr | His | Pro | Gly | Ser | Xaa | Xaa |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |

Ser Pro

<210> 1598

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

1664

<220>
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<220>
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<220>
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<220>
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1598
Xaa Lys Xaa Gly Arg Asn Lys Ala Arg Pro Leu Thr Ser Leu Arg Xaa
1 5 10 15
Thr Phe Xaa Ala Thr Phe Cys Pro Val Xaa Gly Thr Tyr Ile Leu Asn
20 25 30
Asp Cys Pro Xaa Thr His Ser Gly Ile Phe Phe Phe Leu Lys Xaa Xaa
35 40 45
Xaa Lys Ala Phe
50

1665

<210> 1599
<211> 32
<212> PRT
<213> Homo sapiens

<220>
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<220>
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<220>
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<220>
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1599
Ala Phe Asn Xaa Ser Tyr Arg Lys Xaa Val Xaa Ala Val Arg Xaa Glu
1 5 10 15
Phe Arg Val Thr Gln Arg Pro Gly Leu Xaa Xaa Leu Gly Leu Glu Phe
20 25 30

<210> 1600
<211> 19
<212> PRT
<213> Homo sapiens

1666

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<220>
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 <222> (15)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1600
 Ala Arg Gly Phe Phe Phe Phe Phe Phe Phe Phe Xaa Xaa Phe Xaa Phe
 1 5 10 15

Phe Lys Lys

<210> 1601
 <211> 22
 <212> PRT
 <213> Homo sapiens

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1601
 Arg Xaa Asn Arg Val Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe
 1 5 10 15

Phe Phe Phe Xaa Pro Xaa
 20

1667

<210> 1602
<211> 104
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1602
Asp Phe Gly Arg Ser Phe Leu Leu Trp Phe Ser Leu Phe Phe Leu Pro
1 5 10 15
Phe Tyr Ser Ala Arg Ile Ser Gly Gly Leu Met Val Gly Tyr Asn Val
20 25 30
Ser Val Leu Leu Gln Ile Gly Leu Lys Gly Tyr Pro Ala Glu Ser Pro
35 40 45
Ala Phe Leu Ser Ser Ile Tyr Phe Ser Gly Lys Leu Phe Phe Leu Phe
50 55 60
Phe Phe Lys Val Asn Leu Cys Ile Glu Leu Asn Cys Ile Ser Val Phe
65 70 75 80
Pro Ala Tyr Val Tyr Ile Ile Pro Met Ile Pro Asn Ser Tyr Leu Tyr
85 90 95
Phe Xaa Thr Asn Ser Gln Ser Glu
100

<210> 1603
<211> 86
<212> PRT
<213> Homo sapiens

<220>
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<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

1668

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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (73)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (80)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <222> (81)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1603
 Phe Leu Met Leu Ser Phe Met Gly Ile Val Thr Phe Leu Phe Ser Lys
 1 5 10 15
 Ser His Cys Trp Asn His Gln Gly Cys Gly Met Ser Leu Xaa Val Leu
 20 25 30
 Phe Met Gln Val Thr Val Thr Phe Ala Ile Met Ala Xaa Phe Glu Thr
 35 40 45
 Leu Ile Met Cys Phe Tyr Phe Phe Ile Pro Val Lys Met Xaa Xaa Lys
 50 55 60
 Arg Lys Lys Val Val Ile Ala Pro Xaa Ile Ser Gly Ser Lys Leu Xaa
 65 70 75 80
 Xaa Lys Phe Pro Lys Lys
 85

<210> 1604
 <211> 34
 <212> PRT
 <213> Homo sapiens

1669

<400> 1604

Ser Asp Glu Ile Ile Tyr Asn Phe Ile Val Thr Ser Ser Val Phe Pro
1 5 10 15

Phe Glu Arg Cys Met Asn Ser Leu His Phe Tyr Ser Asn Val Leu Ser
20 25 30

Val Asp

<210> 1605

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

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<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1605

Leu Leu Val Trp Ser Glu Tyr Asn Thr Ser Ile Ile Thr Tyr Asn Ser
1 5 10 15

1670

Xaa Pro Gly Thr Gly Gly Tyr Lys Tyr Asn Phe Phe Lys Xaa Asn Ser
20 25 30

Trp Leu Ser Thr Xaa Leu Gln Val Pro Leu Xaa Gly Xaa Leu Trp Xaa
35 40 45

Ile Thr Leu Gly Lys
50

<210> 1606

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

1671

<400> 1606

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Trp | Ala | Asp | Ala | Trp | Gly | Lys | Val | Ser | Ser | Ser | Leu | Xaa | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Xaa | Ile | Cys | Xaa | Leu | Xaa | Xaa | Arg | Lys | Val | Arg | Xaa | Gly | Gln | Xaa | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |

<210> 1607

<211> 31

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1607

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Met | Asp | Thr | Ile | Leu | Asn | Lys | Xaa | Ile | Gln | Val | Lys | Pro | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Glu | Lys | Glu | Ile | Lys | Val | Ser | Gly | Ser | Cys | Xaa | Ser | Xaa | Val | |
| | | | 20 | | | | | 25 | | | | | 30 | | |

<210> 1608

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (79)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (97)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids

1673

<220>
 <221> SITE
 <222> (102)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (104)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (107)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1608
 Asp Pro Gln Gly Ile Arg His Pro His Ile Val Gln Leu Lys Asp Phe
 1 5 10 15
 Gln Cys Glu Leu Gly Ala Gly Xaa Leu Pro Lys Gly Val Glu Lys Asp
 20 25 30
 Ile Xaa Phe Arg Pro Xaa Leu Cys Leu Leu Lys Gln Gln Leu Gly Thr
 35 40 45
 Val Glu Pro Ile Asn Leu Xaa Phe Asn Pro Leu Gly Ser Phe Phe Ala
 50 55 60
 Gly Gln Gly Gly Gly Arg Lys Pro Trp Xaa Phe Xaa Xaa Phe Xaa Ser
 65 70 75 80
 Gln Leu Asn Pro Gly Gln Xaa Asn Phe Leu Gly Pro Leu Lys Glu Lys
 85 90 95
 Xaa Phe Gly Pro Xaa Xaa Xaa Xaa Leu Ser Xaa
 100 105

<210> 1609
 <211> 72
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE

1674

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1609

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Thr | Ser | Thr | Ala | Lys | Leu | Gln | Lys | Gly | Gly | Phe | Cys | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Glu | Asp | Val | Tyr | Leu | Gln | Gly | Ala | Lys | Gln | Gly | Glu | Leu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Cys | Leu | Arg | Pro | Asn | Leu | His | Asp | Asp | Leu | Gln | Ala | Arg | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Lys | Xaa | Ser | Gly | Lys | Phe | Pro | Gly | Lys | Pro | Glu | Val | Lys | Gly | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Cys | Lys | Ser | Val | Glu | Ile | Gly |
| 65 | | | | | | 70 | |

<210> 1610

<211> 77

<212> PRT

<213> Homo sapiens

<400> 1610

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Arg | Gly | Ser | Val | Gln | Gly | Arg | Val | Glu | Leu | Leu | Ser | Glu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Gly | Gly | Pro | Leu | Arg | Pro | Gly | Pro | Asp | Pro | Val | Leu | Gln | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Gln | Gly | Gln | Val | His | Gly | Glu | Thr | Met | Gly | Cys | Leu | Ser | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Leu | Ala | Leu | Leu | Ser | Pro | Pro | Ile | Arg | Leu | Ser | Phe | Leu | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Cys | Leu | Gln | Gly | Leu | Asp | Pro | Gly | Lys | Glu | Phe |
| 65 | | | | | 70 | | | | | 75 | | |

<210> 1611

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

1675

<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1611
Glu Asn Leu Pro Ser Gln Xaa Ala Pro Ala Gly Leu Pro Lys Xaa Xaa
1 5 10 15

1676

Gln Pro Cys Leu Tyr Phe Tyr Gly Xaa Asn Gly His Lys Ile Ile Ile
 20 25 30

Asn Leu Thr Lys Thr Xaa Leu Phe Ser Xaa Phe Leu Glu Leu Ser Trp
 35 40 45

Ser Phe Leu Ile Leu Xaa Phe Gly Asn Xaa Arg Leu Phe Leu Lys Cys
 50 55 60

Phe Xaa Asp Val Lys Ile Xaa Tyr
 65 70

<210> 1612

<211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1677

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1612

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Ser | Glu | Met | Leu | Cys | Asn | Leu | Leu | Xaa | Gln | Leu | Lys | His | Xaa |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Leu | Arg | Gly | Arg | Asn | Tyr | Lys | Xaa | Cys | Ser | Asn | Leu | Phe | Trp | Val |
| | | | 20 | | | | | 25 | | | | | | 30 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Xaa | Met | Tyr | Leu | Trp | Val | Gln | Ala | Leu | Phe | Gly | Gly | Phe | Xaa | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Asn | Xaa | Xaa | Lys | Val | Xaa | Leu | Leu | Ile | Lys | Lys | Arg | Lys |
| | | 50 | | | | 55 | | | | | | 60 | | |

<210> 1613

<211> 22

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1613

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Xaa | Ser | Xaa | Thr | Ala | Gly | Asp | Arg | Xaa | Xaa | Thr | Ser | Gly | Ser |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1678

| 1 | 5 | 10 | 15 |
|---|---|----|----|
| Pro Gly Leu Gln Glu Phe | | | |
| 20 | | | |
| | | | |
| <210> 1614 | | | |
| <211> 85 | | | |
| <212> PRT | | | |
| <213> Homo sapiens | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (5) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (6) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (14) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (15) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (20) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (46) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (51) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |
| | | | |
| <220> | | | |
| <221> SITE | | | |
| <222> (63) | | | |
| <223> Xaa equals any of the naturally occurring L-amino acids | | | |

1679

<220>
 <221> SITE
 <222> (75)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (78)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (83)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (85)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1614

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gly | Gly | Phe | Xaa | Xaa | Phe | Phe | Phe | Phe | Phe | Phe | Phe | Xaa | Xaa | Phe |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Phe | Phe | Tyr | Xaa | Trp | Val | Ile | Ser | Thr | Cys | Phe | Ile | Pro | Ala | Ile | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Ile | Lys | Asn | Ile | Ser | Asn | Tyr | Tyr | Thr | His | Thr | Lys | Xaa | Val | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Leu | Xaa | Leu | Pro | Pro | Thr | Pro | Arg | Gly | Lys | Asn | Cys | Phe | Xaa | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Glu | Val | Val | Ser | Glu | Thr | Arg | Gly | Gln | Xaa | Thr | Gln | Xaa | Arg | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Gly | Xaa | Arg | Xaa | | | | | | | | | | | |
| | | | | 85 | | | | | | | | | | | |

<210> 1615
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 1615

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Ala | Val | Pro | Cys | Ser | Gly | Ile | Gln | Gly | Arg | Phe | Ser | Pro | Leu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

1680

Phe Leu Leu Ala Gly Asp Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys
 20 25 30
 Lys Glu Cys Lys Cys Thr Ser Cys Lys Lys Ser Lys Trp Asp Pro Leu
 35 40 45
 Phe Pro Leu Pro Leu Pro Val Leu Gln Pro Val Pro Ser Ser Pro Ser
 50 55 60
 Ser Gly Glu Leu Lys Gln Val Trp Gly Cys Pro Ile Ala Pro Gly Asn
 65 70 75 80
 Trp Trp Pro Pro Gln
 85

<210> 1616

<211> 29

<212> PRT

<213> Homo sapiens

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<222> (7)

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<400> 1616

Ala Glu Gly Asn Ile Arg Xaa Ala Lys Lys Lys Lys Lys Lys Lys
 1 5 10 15

1681

Lys Lys Lys Lys Lys Lys Lys Lys Xaa Xaa Lys Xaa Xaa
20 25

<210> 1617

<211> 37

<212> PRT

<213> Homo sapiens

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<222> (36)

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<400> 1617

Gly Pro Ala Xaa Trp Arg Glu Thr Pro Pro Xaa Leu Tyr Lys Glu Phe
1 5 10 15

Pro Gly Val Xaa Gly Ser Phe Ser Leu Xaa Ser Glu Trp Gly Ala Gln
20 25 30

Ile Trp Ala Xaa Cys
35

<210> 1618

<211> 22

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1682

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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1618
 Gly Xaa Gly Phe Xaa Pro Ser Pro Ser Cys Phe Pro Gln Cys Leu Lys
 1 5 10 15
 Xaa Leu Asp Gly Leu Xaa
 20

<210> 1619
 <211> 52
 <212> PRT
 <213> Homo sapiens

<400> 1619
 Gln Ser Ile Ser Leu Asn Arg Asp Gly Val Glu Glu Leu Lys Val Gly
 1 5 10 15
 Ile Cys Ser Leu Met Thr Thr Met Phe Thr Ile Cys Cys Gly Leu Val
 20 25 30
 Gly Ala Leu Arg Gln Glu Asn His Val Glu Pro Thr Gly Ser Arg Pro
 35 40 45
 Ala Trp Glu Thr
 50

<210> 1620

1683

<211> 52
<212> PRT
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<400> 1620
Pro Thr Glu Gln Val Thr Leu Gly Ile Thr Ala Gln Ser Tyr Ser Arg
1 5 10 15
Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Xaa Gly Ser Gly His
20 25 30
Pro Asp Xaa Ala Ala Ala Ile Lys Gly Ser Phe Val Gln Arg Leu Lys
35 40 45
Ser Tyr Val Ile
50

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<211> 113
<212> PRT
<213> Homo sapiens

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<400> 1621
Leu Phe Pro Ala Pro Ala Pro Pro Ala Pro Ala Phe Ala Pro Pro

1684

1 5 10 15
 Pro Lys Val Pro Ser Pro Glu Arg Ser Ala Pro Arg Val Pro Leu Pro
 20 25 30
 Ser Pro Gln Pro Ser Tyr Pro Phe Arg Pro Ala Ala Ser Gly Gly Thr
 35 40 45
 Pro Pro Pro Ala Cys Leu Pro Pro Ala Gln Pro Cys Gln Val Pro Pro
 50 55 60
 Ala Met Asn Leu Phe Arg Phe Leu Gly Lys Leu Ser Gln Leu Leu Ala
 65 70 75 80
 Ile Ile Leu Leu Leu Leu Xaa Ile Trp Asn Ser Arg Ser Cys Ala Glu
 85 90 95
 Ile Gln Glu Lys Asn Ser Pro Val Trp Cys Gly Xaa Phe Asn Gly Xaa
 100 105 110
 Ile

<210> 1622

<211> 21

<212> PRT

<213> Homo sapiens

<220>

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<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1622

Val Phe Lys Thr Met Xaa Gln Val Ser Asn Asp Glu Ile Lys His Leu
 1 5 10 15

Phe Val Leu Tyr Gln
 20

<210> 1623

<211> 40

<212> PRT

<213> Homo sapiens

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1685

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<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1623
Leu Arg Thr Ser Cys Phe Xaa Leu Asn Xaa Met Ile His Phe Ile Lys
1 5 10 15
Val Pro Val Ile Lys Tyr Xaa Val Lys Tyr Leu Leu Xaa Trp Thr Ile
20 25 30
Xaa Cys Lys Leu Pro Phe Xaa Xaa
35 40

<210> 1624
<211> 95
<212> PRT
<213> Homo sapiens

<220>

1686

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<221> SITE
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<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (95)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1624
Ile His Pro Xaa Leu Ala Ser Gln Val Ala Gly His Tyr Arg Arg Glu
 1             5             10             15
His Ser Arg Pro Arg Leu Lys Xaa Ala Tyr Ser Lys Lys Gln Phe Gln
      20             25             30

```

1687

Phe Leu Ser Lys Leu Cys Xaa Xaa Arg Gly Ser Thr Asp Phe Leu Gly
 35 40 45
 Pro Val Asn Leu Asn Gln Ser Leu Arg Phe Cys Gln Glu Ser Ser Leu
 50 55 60
 Leu Ser Lys Trp Val Phe Pro Asn Gly His Asn Gly Lys Xaa Xaa Arg
 65 70 75 80
 Gly Xaa Asn Ile Lys Lys Xaa Lys Lys Asn Leu Gly Gly Gly Xaa
 85 90 95

<210> 1625

<211> 40

<212> PRT

<213> Homo sapiens

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<220>

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<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1625

Ala Arg Ala Thr Met Ala Leu Trp Thr Xaa Val Ser Phe Ala Glu Xaa
 1 5 10 15
 Leu Glu Arg Gly Ser Asp Glu Lys Val Xaa Leu Lys Arg Leu Ala Arg
 20 25 30
 Leu Leu Gly Leu Ile Thr Ala Pro
 35 40

<210> 1626

<211> 26

<212> PRT

<213> Homo sapiens

1688

<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1626
Ala Arg Ala Gly Ile Val Pro Xaa His Ser Ser Leu Gly Asp Arg Ala
1 5 10 15
Arg Leu His Leu Lys Lys Lys Lys Lys Xaa
20 25

<210> 1627
<211> 171
<212> PRT
<213> Homo sapiens

<220>
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<222> (59)
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<222> (89)
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<222> (118)
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<222> (119)
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<222> (121)
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1689

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (135)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (155)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1627

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Leu | Gln | Ala | Ser | Glu | Asn | Gln | Pro | Cys | Ser | Arg | His | Ala | Arg | Pro |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Pro | Ser | Ser | Leu | Phe | Pro | Leu | Pro | Ala | Gln | Pro | Ser | Leu | Pro |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ala | Gly | Lys | Ala | Gly | Thr | His | Ser | Gly | Cys | Leu | Pro | Pro | Gly |
| | | 35 | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Glu | Arg | Glu | Gly | Gly | Trp | Val | Gly | Xaa | Gly | Leu | Pro | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Thr | Leu | Pro | Gly | Pro | Arg | Ile | Ala | Pro | Gly | Pro | Lys | Pro | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Pro | Gly | Thr | Lys | Leu | Arg | Xaa | Ser | Ala | Gly | Arg | Ser | Tyr | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Leu | Pro | Pro | Pro | Leu | Leu | Val | Pro | Pro | Pro | Gly | Arg | Leu | Ala | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ser | Asp | Thr | Gly | Xaa | Xaa | Lys | Xaa | Xaa | Xaa | Glu | Pro | Trp | Tyr | Pro |
| | | 115 | | | | | 120 | | | | | | 125 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Leu | Gly | Pro | Gly | Pro | Xaa | Leu | Gly | Pro | Asn | Pro | Ser | Ser | Val | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gly | Val | Trp | Asn | Lys | Cys | Cys | Leu | Ser | Xaa | Gln | Gln | Lys | Lys | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Gly | Gly | Arg | Phe | Arg | Gly | Phe | Lys | Ala |
| | | | | 165 | | | | | 170 | |

1690

<210> 1628
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<220>
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<220>
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<220>
 <221> SITE
 <222> (117)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1628
 Arg Pro Ala Arg Ser Pro Ala Glu Val Gly Ser Arg Gly Leu Ser Ser
 1 5 10 15
 Pro Pro Arg Ala His His Arg Pro Val Ser Pro Ala Ala Pro Gly Arg
 20 25 30
 Trp Ser Thr Ser Ala Arg Val Arg Thr Arg Lys Met Val Asn Tyr Ala
 35 40 45
 Trp Ala Gly Arg Xaa Arg Arg Lys Leu Trp Trp Arg Ser Val Ala Val
 50 55 60
 Leu Thr Cys Lys Ser Val Val Arg Pro Gly Tyr Arg Gly Glu Arg Leu
 65 70 75 80
 Asn Arg Thr Ile Leu Val Ser Trp Phe Pro Ser Glu Xaa Phe Pro Gln
 85 90 95

1691

Asp Lys Leu Gly Ala Leu Ala Arg Pro Arg Arg Asn Pro Xaa Xaa Gly
100 105 110

Ile Phe Ile Arg Xaa Lys Arg Ile
115 120

<210> 1629

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1629

Asn Leu Val Pro Gly Ser Ser Ala Thr Tyr Ile Ser Leu Ser Ser Cys
1 5 10 15

Cys Phe Val Lys Arg Lys Arg Lys Lys Lys Pro Lys Leu Val Arg Val
20 25 30

Ile Ser Asn Tyr Leu Ile Phe Cys Arg Ser Val Ile Lys Asn Leu Val
35 40 45

Ile Pro Ser Thr Ser Tyr Cys Glu Glu Gln Thr Leu Gly Pro Thr Leu
50 55 60

Lys Ser Pro Leu Val Thr His Ser His Pro Pro Gly Ser Cys Leu Pro
65 70 75 80

Gly Arg Gly Cys Arg Lys
85

<210> 1630

<211> 35

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1630

Leu Lys Lys Lys Phe Pro Glu Glu Glu Lys Lys Thr Thr Lys Asn Lys
1 5 10 15

Thr Leu Lys Val Asp Ile Leu Cys Gly Xaa Thr Phe Glu Leu Asn Ser
20 25 30

1692

Glu Phe Phe
35

<210> 1631
<211> 40
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1631
His Glu Gln Pro Thr Ala Ala Cys Ile Cys Ile Xaa Arg Gln Val Pro
1 5 10 15
Pro Val Pro Ala Ala Arg Xaa Pro Gln Ser Arg Thr Xaa Ser Xaa Gln
20 25 30
Ala Lys Leu Ala Leu Thr Met Pro
35 40

<210> 1632
<211> 97
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

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<220>

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (53)

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<221> SITE

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<220>

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<222> (95)

<223> Xaa equals any of the naturally occurring L-amino acids

1694

<400> 1632

Xaa Ser Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro
 1 5 10 15

Xaa Gly Pro Pro Gly Lys Asp Gly Thr Xaa Gly His Pro Gly Ala Ile
 20 25 30

Gly Pro Pro Gly Pro Arg Gly Asn Xaa Gly Glu Xaa Gly Ser Xaa Gly
 35 40 45

Ser Pro Gly Pro Xaa Arg Ala Thr Arg Ala Leu Leu Xaa Pro Pro Gly
 50 55 60

Ala Pro Gly Pro Cys Cys Gly Gly Val Xaa Ala Ala Ala Ile Ala Gly
 65 70 75 80

Ile Gly Arg Leu Lys Lys Leu Gly Arg Phe Xaa Pro Arg Val Xaa Trp
 85 90 95

Gly

<210> 1633

<211> 43

<212> PRT

<213> Homo sapiens

<220>

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<222> (31)

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<222> (35)

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<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

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<220>

1695

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1633

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Gly | Arg | Pro | Phe | Xaa | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Gln | Xaa | Tyr | Val | Xaa | Xaa | Xaa | Ala | Thr | Ser |
| | | 35 | | | | | 40 | | | |

<210> 1634

<211> 88

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1634

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Ala | Ala | Leu | Ser | Ala | Thr | Lys | Thr | Cys | Arg | Pro | Ala | Phe | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Ser | Ala | Ala | Pro | Arg | Gly | Gly | Gly | Pro | Ala | Arg | Ser | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Leu | Gly | Arg | His | Ala | Ala | Gly | Ser | Leu | Ala | Arg | Leu | Val | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Arg | Gly | Phe | Trp | Leu | Leu | Gly | Gly | Glu | Val | Lys | Ser | Phe | Cys |
| | 50 | | | | | 55 | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Cys | Trp | Gly | Arg | Arg | Thr | Arg | Arg | Glu | Arg | Lys | Lys | Lys | Lys | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Leu | Gly | Lys | Tyr | Phe | Xaa |
| | | | | | 85 | | |

1696

<210> 1635
 <211> 105
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (70)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (102)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1635
 Tyr Ser His Ser Gly Phe Cys Ser Pro Thr Asp Glu Asp Arg Cys Thr
 1 5 10 15
 Asn Glu Ala Asp Gly Asn His Pro Val Glu Val His Leu Arg Ser Asp
 20 25 30
 Pro Asp Asp Ala Arg Ala Met Thr Gly Pro Ala Gly Val Ala Pro Arg
 35 40 45
 Gly Asp Gln Pro Trp Ser Ser His Arg Arg Lys Pro Leu Arg Ser Gly
 50 55 60
 Lys Arg Arg Arg Lys Xaa Lys Trp Gln Lys Gln Lys Glu Pro Gln Ser
 65 70 75 80
 Ser Ile Gly Asp His Ser Met His Phe Leu Pro Ala Ala Thr Gln Thr
 85 90 95
 Leu Pro Glu Leu Leu Xaa Asn Leu Met
 100 105

<210> 1636
 <211> 47
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (5)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

1697

<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1636
Gln Arg Pro Arg Xaa Xaa Gly Thr Gly Ser Gly Pro Pro Gly Pro Gly
1 5 10 15
Lys Ala Ser His Gly Gly Gly Ala Pro Val Ser Arg Ser Gly Thr Gly
20 25 30
Ser Glu Asp Gly Arg Glu Ser Arg Ala Thr Val Val Val Xaa Cys
35 40 45

<210> 1637
<211> 55
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (16)
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<220>
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1698

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<223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1637
Gly Asp Pro Pro Glu Gly Pro Ala Thr Ser Pro Leu Thr Asn Ser Xaa
1 5 10 15
His Pro Xaa Ser Xaa Gly Thr Ala Ala Ala Thr Gln Arg Arg Xaa Ser
20 25 30
Glu Gln Gly Gly Arg Xaa Thr Cys Gly Pro Ala Gly Ala Gly Ser Pro
35 40 45
Xaa Xaa Pro Pro Arg Ala Xaa
50 55

<210> 1638
<211> 55
<212> PRT
<213> Homo sapiens

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

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1700

<222> (41)

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<220>

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<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1638

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Xaa | His | Ala | Thr | Xaa | Tyr | Arg | Gly | Xaa | Phe | Cys | Xaa | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Xaa | Xaa | Leu | His | Ser | Ala | Asn | Val | Thr | Thr | Xaa | Xaa | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Xaa | Xaa | Phe | Tyr | Xaa | Xaa | Arg | Xaa | Xaa | Ala | Xaa | Val | Asn | Ile | Ser |
| | | | 35 | | | | 40 | | | | | | 45 | | |

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Val | Pro | His | Cys | Pro | Ile |
| | 50 | | | | | 55 |

<210> 1639

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1639

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Cys | Pro | Gln | Asn | Pro | Leu | Asn | Pro | Leu | Val | Asn | Leu | Thr | Xaa | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

1701

Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
 20 25 30

Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
 35 40 45

Arg Lys Arg Ser Ser Xaa Thr Pro Thr Thr
 50 55

<210> 1640

<211> 37

<212> PRT

<213> Homo sapiens

<220>

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<222> (30)

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<220>

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<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1640

Met Cys Val Asp Cys Met Asn Asp Leu Glu Lys Lys Lys Lys Lys Lys
 1 5 10 15

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Xaa Pro Xaa
 20 25 30

Gly Xaa Pro Xaa Pro
 35

<210> 1641

<211> 41

1702

<212> PRT

<213> Homo sapiens

<400> 1641

Tyr Val Trp Leu Gly His Phe Val Ala Lys Val Arg Thr Cys Leu Trp
1 5 10 15

Lys Thr Ser Leu Trp Leu Gly Glu Ser Val Trp Pro Ala Ala Ser Asp
20 25 30

Leu Cys Arg Val Leu Thr Cys Gln Gly
35 40

<210> 1642

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

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<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1703

<221> SITE
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 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
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 <222> (42)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (49)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (51)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (95)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1642
 Xaa Pro Ala Ala Ser Tyr Leu Met Thr Leu Met Glu Pro Leu Ser Leu
 1 5 10 15

 Ile Xaa Xaa Xaa Leu Ser Pro Pro Leu Xaa Xaa Ser Lys Glu Asn His
 20 25 30

 Phe Asp Ala Arg Ser Cys Leu Xaa Ser Xaa Pro Lys Cys Ser Cys Ser
 35 40 45

 Xaa Pro Xaa Pro Gly Ile Ser Leu Pro Arg Asp Lys Ser Ala Ser Glu
 50 55 60

 Ile Leu His Asp Ser Leu Cys Phe Gln Asn Pro Gly Leu Phe Cys Ile
 65 70 75 80

 Ser Ser Phe Leu Gly Pro Ala Ser Cys Val Pro Leu Lys Gly Xaa Trp
 85 90 95

 Ala Lys Thr

<210> 1643
 <211> 42
 <212> PRT

1704

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1643

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Xaa | Pro | Xaa | Asn | Leu | Gly | Lys | Ala | Arg | Leu | Gln | Val | Pro | Val | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Arg | Val | Asp | Leu | Arg | Val | Phe | Ile | Tyr | Ile | Asp | Ile | Tyr | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ile | Tyr | Arg | Tyr | Ile | Tyr | Arg | Tyr | Ile |
| | | 35 | | | | 40 | | | |

<210> 1644

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1705

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1644

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Gly | Val | Arg | Leu | Ala | Gln | Val | Pro | Xaa | His | Leu | Thr | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | His | Pro | His | Pro | Val | Phe | His | Xaa | Arg | Leu | Lys | Ala | Thr | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Met | Xaa | His | Thr | Glu | Ala | Xaa | Met | Xaa | Xaa | Asn | His | Leu |
| | | 35 | | | | | 40 | | | | | 45 | |

<210> 1645

<211> 69

<212> PRT

<213> Homo sapiens

<400> 1645

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Val | Arg | Leu | Lys | Pro | Ile | Phe | Ser | Pro | Phe | Phe | Leu | Leu | Phe | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Ala | His | Ile | Val | Pro | Leu | Phe | Tyr | Glu | Pro | Gln | Phe | Ser | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Leu | Lys | Lys | Lys | Ser | Ser | Leu | Asn | Ile | Ala | Phe | Arg | Lys | Leu |
| | | | 35 | | | | | 40 | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Phe | Leu | Asp | Lys | Lys | Ser | Tyr | Thr | Leu | Lys | Lys | Lys | Lys | Thr | Phe |
| | | | 50 | | | 55 | | | | | 60 | | | | |

| | | | | |
|-----|-----|-----|-----|-----|
| Ser | Arg | Lys | Ile | Tyr |
| | | | | 65 |

<210> 1646

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

1706

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (76)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1646

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Cys | Phe | Val | Leu | Ser | Phe | Ile | Tyr | His | Phe | Phe | Leu | Tyr | Lys |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Ile | Ser | Arg | Phe | Leu | Tyr | Tyr | Met | Ile | Asp | Ile | Asn | Trp | Val |
| | | | 20 | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Ser | Arg | Gln | Phe | Val | Phe | Ser | Xaa | Xaa | Pro | Pro | Ser | Thr | Val |
| | | | 35 | | | | 40 | | | | | | 45 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gln | Arg | Pro | Asp | Xaa | Val | Gly | Lys | Val | Phe | Phe | Leu | Arg | Ile | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Ser | Xaa | Gln | Leu | Gly | Leu | Ile | Lys | Ala | Xaa | Xaa | Pro |
| 65 | | | | | 70 | | | | | 75 | | | |

<210> 1647

<211> 58

<212> PRT

<213> Homo sapiens

<400> 1647

1707

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Ser
 1 5 10 15
 Pro Lys Arg Asn Ser Ser Leu Asp Thr Arg Lys Lys Pro Cys Arg Glu
 20 25 30
 Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser His Gln Leu
 35 40 45
 Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr
 50 55

<210> 1648
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 1648
 Cys Leu Phe Leu Leu Pro Val Met Leu Leu Gln Ile His Ile Ser Arg
 1 5 10 15
 Ser Thr Val Asn Val Ser Thr Ser Arg Gly Thr Pro Pro Ser Thr Leu
 20 25 30
 Ser Val Lys Gly Gln Asn Glu Thr Val Arg Val Lys Gly Thr Gly Arg
 35 40 45
 Lys Phe Ala Cys Leu Gln Val Thr Arg Ile Arg
 50 55

<210> 1649
 <211> 110
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (11)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (29)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE

1708

<222> (54)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (66)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (71)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
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 <222> (86)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (88)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <220>
 <221> SITE
 <222> (94)
 <223> Xaa equals any of the naturally occurring L-amino acids

 <400> 1649
 Val Pro Pro Pro Val Pro Trp Gly Gly Pro Xaa Arg Glu Gly Glu Val
 1 5 10 15

 Ser His Thr Lys Ala Asp Ala Pro Leu Val Gly Gly Xaa Trp Pro Gly
 20 25 30

 Lys Ile Glu Gly Cys Ala Gly Leu Pro Leu Arg Ala Ala Gln Thr Ala
 35 40 45

 Leu Met Cys Gly Gly Xaa Ala Arg Trp Val Arg Ala Gln Glu Val Ala
 50 55 60

 Pro Xaa Thr Val Ala Asp Xaa Leu Pro Arg Val Pro Gly Ser Ser Leu
 65 70 75 80

 Tyr Pro Trp Tyr Ala Xaa Asn Xaa Trp Phe Pro His Pro Xaa Ala Ala
 85 90 95

 Lys Ser Leu Phe Pro Trp Ile Ser Gln Ala Lys Leu Gly Leu
 100 105 110

1709

<210> 1650
<211> 74
<212> PRT
<213> Homo sapiens

<220>
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<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1650
Ser Pro Glu Gly Leu Ser Leu Leu Ala Pro Xaa Pro Gly Arg Ala Pro
1 5 10 15
Ala Gly Pro Thr Pro Leu Arg Gly Gln Cys Gln Xaa Gly Ser Leu Thr
20 25 30
Gly Ala Val His Leu Ser Asn Gly Asn Ala Gly Val Leu Arg Arg Ala
35 40 45
Gln Gly Gly Gln Lys Pro Pro Val Glu Gln Lys Gly Lys Ser Ser Leu
50 55 60
Asp Leu His Phe Gln Tyr Glu Tyr Arg Pro
65 70

<210> 1651
<211> 83
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

1710

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (62)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1651

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Gly | Gly | Gly | Arg | Met | Met | Thr | Tyr | Pro | Glu | Val | Leu | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Arg | Thr | Gly | Ala | Cys | Ser | Val | Pro | Trp | Glu | His | Xaa | Ala | Gln |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Gly | Val | Gln | Ala | Val | Gly | Ser | Phe | Pro | Asn | Xaa | Ser | Ile | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Pro | Xaa | Xaa | Leu | Lys | Pro | Val | Gly | Gln | Ile | Ser | Lys | Xaa | Leu | Xaa |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Xaa | Arg | Xaa | Pro | Phe | Thr | Asn | Pro | Arg | Phe | Cys | Gly | Gln | Cys | Pro | Lys |
| | 65 | | | | | 70 | | | | 75 | | | | | 80 |

Gly Val Gly

1711

<210> 1652
<211> 90
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1652
Phe Phe Phe Phe Leu Asp Val Lys Gly Ile Xaa Phe Gln Arg Leu Leu
1 5 10 15

1712

Glu Ser Leu Val Tyr Thr Asp Glu Gly Val Arg Cys Cys Phe Pro Ser
 20 25 30
 Glu Ser Ser Ala Ser Thr Glu Ile Xaa Leu Xaa Leu Ile Phe Asp Ile
 35 40 45
 Leu His Cys Leu Leu Xaa Xaa Xaa Arg Ser Phe Leu Pro Phe Thr Ser
 50 55 60
 Pro Ser Asn Tyr Val Gln Met Cys Arg Leu Leu Xaa Ser Gly Leu Ser
 65 70 75 80
 Pro Lys Ala Leu Thr Leu Gly Leu Xaa Phe
 85 90

<210> 1653

<211> 55

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1653

Lys Leu Trp Phe Val Phe Val Phe Cys Leu Phe His Leu Phe Pro Ser
 1 5 10 15

1713

Gln Pro Gln Thr Phe Cys Ser Leu Arg Glu Leu Thr Phe Pro Phe Phe
20 25 30

Phe Leu Phe Phe Phe Phe Gly Xaa Leu Xaa Val Xaa Asn Lys Ile Xaa
35 40 45

Xaa Ala Ile Lys Lys Lys Lys
50 55

<210> 1654

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<220>

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<222> (53)

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<220>

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<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

1714

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1654

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Xaa | Ala | Thr | Asn | Leu | Pro | Ser | Leu | Val | Ile | Ala | Xaa | Cys | Ser | Xaa |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Glu | Ser | Leu | Val | Pro | Leu | Leu | Ile | Trp | Pro | Gln | Lys | Pro | Pro | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Trp | Leu | Ile | Leu | Thr | Val | Xaa | Pro | Lys | Lys | Gly | Thr | Xaa | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gly | Pro | Leu | Xaa | Lys | Lys | Thr | Leu | Xaa | Lys | Xaa | Asn |
| | 50 | | | | | 55 | | | | | | 60 |

<210> 1655

<211> 20

<212> PRT

<213> Homo sapiens

<220>

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<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1655

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Val | Leu | Gln | Thr | Ala | Arg | Arg | Ala | Arg | Ser | Ala | Cys | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

Xaa Xaa Xaa Xaa

1715

20

<210> 1656
<211> 24
<212> PRT
<213> Homo sapiens

<220>
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<222> (12)
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<220>
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<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1656
Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Xaa Xaa Thr Ile Phe
1 5 10 15

Xaa Asn Xaa Lys Arg Val Leu Leu
20

<210> 1657
<211> 34
<212> PRT
<213> Homo sapiens

<220>
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<222> (10)
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<220>
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<222> (31)

1716

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1657

Ala Ala Ala Cys Leu Pro Ala Thr Glu Xaa Ser Gln His His Glu Gly
1 5 10 15

Leu Asp Leu Leu Ser Pro Leu Pro Gly Arg Glu Gly Leu Gly Xaa Pro
20 25 30

Ser Xaa

<210> 1658

<211> 51

<212> PRT

<213> Homo sapiens

<400> 1658

Cys Lys Gln Tyr Leu Thr Asn Pro Gln Val Leu Asn Tyr Gln Thr Cys
1 5 10 15

Ile Lys Asn Phe Gly Trp Gly Asp Leu Gly Ala Glu Pro Asn Leu Arg
20 25 30

Ala Val His Ala Lys Thr Ser Pro Val Lys Ala Asn Tyr Tyr Thr Gln
35 40 45

Leu Ile Gln
50

<210> 1659

<211> 166

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

1717

<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (72)
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<220>
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<222> (84)
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<220>
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<220>
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<220>
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<220>
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<222> (117)

1718

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

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<222> (122)

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<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (133)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (149)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (160)

<223> Xaa equals any of the naturally occurring L-amino acids

1719

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1659

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | His | Ala | Ser | Gly | His | Ser | His | Ser | Gln | Ala | Ser | Leu | Ala | Gly |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Val | Ala | Arg | Val | Arg | Cys | Leu | Leu | Gln | Leu | Gln | Asp | Asp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Glu | Asp | Ala | Leu | Leu | Leu | Phe | Leu | Pro | Gln | Pro | Arg | Gln | Glu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Xaa | Pro | Gln | Xaa | Pro | Ser | Arg | Pro | Ser | Arg | Gly | Pro | Xaa | Trp | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Leu | Lys | Lys | Ala | Glu | Xaa | Gly | Gly | His | Pro | Ser | Gln | Glu | Xaa |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Trp | Xaa | Gly | Glu | Xaa | Xaa | Glu | Arg | Arg | Pro | Pro | Trp | Xaa | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Xaa | Arg | Thr | Phe | Trp | Asn | Arg | Ile | Pro | Glu | Glu | Gln | Arg | Ala | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Xaa | Leu | Xaa | Xaa | Arg | Gly | Pro | Xaa | Xaa | Val | Xaa | Pro | Trp | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Glu | Xaa | Xaa | Pro | Gly | Lys | Glu | Ser | Xaa | Leu | Arg | Gly | Gly | Xaa |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Gly | Lys | Xaa | Leu | Phe | Leu | Ile | Lys | Ala | Lys | Leu | Gly | Ile | Xaa |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Phe | Xaa | Lys | Arg | Lys | Gly |
| | | | | 165 | |

<210> 1660

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

1720

<220>
<221> SITE
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<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (24)
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<220>
<221> SITE
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<220>
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<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
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<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids

1721

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1660

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Gly | Leu | Gln | Glu | Phe | Gly | Xaa | Arg | Gly | Xaa | Arg | Asn | Arg | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Tyr | Ala | Xaa | Xaa | His | His | Xaa | Xaa | Pro | His | Arg | Xaa | Ser | Ile | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | His | Ala | Leu | His | Ser | Xaa | Arg | Gly | Asp | Asp | Ala | Xaa | Leu | Thr | Ile |
| | | | 35 | | | | | 40 | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Xaa | Xaa | Pro | Pro | Met | Val | Leu | Glu | Pro | Thr | Ser | Thr | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | |
|-----|-----|-----|-----|
| His | Xaa | Val | Asp |
| | | | 65 |

<210> 1661

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (48)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1661

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Asn | Ala | Asp | Thr | Leu | Met | Asn | Asp | Gln | Gln | Gln | Leu | Ser | Ala | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Lys | Thr | Leu | Ile | Phe | Glu | Phe | Thr | Cys | Trp | Val | Pro | Gly | Ser | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Lys | Arg | Pro | Leu | Phe | Ile | Lys | Arg | Gly | Pro | Pro | Phe | Xaa | Xaa |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

1722

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| | 35 | | 40 | | 45 |
| Pro | Lys | Asp | Phe | Leu | Xaa |
| | 50 | | 55 | | 60 |
| | | | Phe | Gln | Ile |
| | | | Gly | Lys | Gly |
| | | | | | Thr |

<210> 1662

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1662

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Xaa | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Lys | Asn | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Val | Xaa | Gly | Ile | Xaa | Asn | Leu | Asp | Ile | Xaa | Phe | Gly | Thr | Ser | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | His | Ser | Pro | Thr | His | Ala | Gly | Gly | Cys | Ala | Cys | Arg | Thr | Xaa | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| Thr | Asp | Trp | Trp | Ile | Leu |
| | 50 | | | | |

1723

<210> 1663

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1663

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Glu | Lys | Leu | Cys | Val | Arg | Gly | Arg | Gly | Leu | Phe | Arg | Cys | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ser | Ser | Ser | Cys | Thr | Leu | Phe | Lys | Ser | Leu | His | Trp | Arg | Asn | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ile | Thr | Ser | Ser | Leu | Val | Ala | Glu | Gly | Arg | Gly | Asn | Ile | His | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Met | Pro | Val | Cys | Cys | Met | Gln | Ala | Phe | Trp | Leu | Pro | Thr | Leu | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Asn | Asn | Cys | Thr | Asn | Ser | Leu | Val | Pro | Ile | Pro | Pro | Thr | Glu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Gly | Ala | Thr | Val | Phe | Phe | Ala | Leu | His | Cys | Lys | Glu | Arg | Asp | |
| | | | | 85 | | | | | 90 | | | | | 95 | |

<210> 1664

<211> 100

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

1724

<400> 1664

Val Asn Gln Glu Thr Thr Pro Val Asp Cys Gly Ala Leu Glu Gly Leu
1 5 10 15

Val Gly Val Asn Leu Pro Thr Pro Tyr Asn Cys Gly Arg Ile Gln Lys
20 25 30

Ser Leu Ser Phe Tyr Ile His Ser Leu Asp Val Ile Gly Pro Leu Pro
35 40 45

Pro Ile Ser Leu Arg Cys His Ala Ser Met Gly Ser Gly Val Val Arg
50 55 60

Lys Asn Lys Arg Arg Xaa Asp Ser Leu Val Met Asp Lys Ile Leu Thr
65 70 75 80

Thr Val Phe Pro Xaa Gly Ile Pro Tyr Xaa Xaa Phe Asn Phe Phe Phe
85 90 95

Ser Leu Lys Asn
100

<210> 1665

<211> 33

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

1725

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1665

Ser Ala Pro Gly Gly Ser Cys Tyr Ser Gly Xaa Pro Arg Val Pro Lys
1 5 10 15

Cys Xaa Ile Gln Xaa Asp Pro Xaa Ser Xaa Pro Pro Cys Leu Gln Leu
20 25 30

Val

<210> 1666

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1666

Gly Arg Val Gly Gly Arg Val Gly Gly Arg Val Gly Arg Glu Pro Gln
1 5 10 15

Val Tyr Thr Leu Pro Pro Ser Arg Glu Xaa Met Thr Lys Lys Gln Ser
20 25 30

Ala Glu Leu Pro Xaa Ser Xaa Gly Phe Tyr Pro Thr Lys Ser Pro
35 40 45

<210> 1667

<211> 34

<212> PRT

1726

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1667

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Glu | Ile | Thr | Leu | Gln | Gly | Glu | Pro | Lys | Leu | Arg | Pro | Pro | Lys | Pro |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Ala | Thr | Leu | Glu | Gln | Leu | Lys | Glu | His | Thr | Pro | Leu | Phe | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

Pro Xaa

<210> 1668

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1668

Ile Cys Pro Gln Asn Pro Leu Asn Pro Leu Val Asn Leu Thr Val Xaa

1727

1 5 10 15
 Pro Lys Arg Asn Lys Leu Phe Gly His Xaa Glu Lys Thr Leu Tyr Arg
 20 25 30
 Glu Glu Xaa Xaa Phe Xaa Asn Pro Tyr
 35 40

<210> 1669

<211> 96

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1669

Gly Arg Ala Leu Pro Gly Arg Val Arg Ala Ala Thr Gly Glu Gly Arg
 1 5 10 15
 Thr Phe Val Xaa Asn Gly Thr Val Leu Leu Ala Pro Pro Arg Gly Gly
 20 25 30
 Pro Leu Val Ser Pro Leu Pro Ala Arg Arg Arg Cys Val Trp Glu Gly
 35 40 45
 Val Gly Cys Gly Pro Arg Pro Asp Leu Ala Val Pro Pro Ala Ala Phe
 50 55 60
 Cys Val Ala Gly Ala Gly Arg Arg Gly Pro Leu Thr Xaa Gln Thr Ala
 65 70 75 80

Leu Ala Val Xaa Ser Ser Gly Xaa Arg Leu Ala Gly Gly Thr Pro Thr
85 90 95

Gly Lys Arg Gly Pro Ala Thr Cys Pro Ala Trp Ala Pro Glu Pro Ser
85 90 95

1729

Ser Leu Thr Gly Gln Ser Leu Val Gly Lys Ala Ala Ser Trp Pro Xaa
100 105 110

Ser Leu Leu Met Phe Leu Val Ser Arg Val Gln Ser Gln Leu Phe Xaa
115 120 125

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Arg Leu Ser Xaa His Glu Gly Cys Ser Ala Xaa Cys Ile Ser Val Tyr
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Val Val

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<211> 113

1730

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 20 25 30
 Ala Ser Trp Pro Thr Arg Ser Arg Glu Ser Leu Arg Glu Arg Arg Arg
 35 40 45
 Ser Arg Ala Ala Ser Gly Leu Gly Ile Arg Pro Leu Gly Pro Pro Leu
 50 55 60
 Val Ser Arg Val Gly Arg Asn Arg Arg Leu Ala His Leu Ala Trp Val
 65 70 75 80
 Cys Pro His Val Val Ile Val Gln Ile Asn Ala His Ser Glu Leu Ala
 85 90 95
 Val Tyr Phe Leu Lys Phe Asn Ile Val Phe Val Ile Leu Lys Tyr Leu
 100 105 110
 Leu

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1731

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<400> 1673

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Arg Leu Pro Ser Cys Phe Ser Leu Leu Ser Cys His Gln Pro Phe Leu
          20             25             30

Leu Gly Gly His Val Leu Gly Lys Arg Pro His Asp Leu Ser Gly Ser
          35             40             45

Thr Gln Cys Leu Arg His Pro Ala Ser Phe Ala Cys Ile Pro Gln Thr
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Ile Ser Leu Ile Leu Phe Thr Ala Ala Asn Leu Ser Leu Val Asp Glu
65             70             75             80

Thr Val Phe Ile Xaa Leu
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<212> PRT

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<400> 1674

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Ser Asp Tyr Glu Leu Leu Phe Lys Arg Lys Met Leu Phe Ile His Ala
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Glu Val Ile Gln Phe Pro Pro Ser Tyr Arg Ser Ile Leu Ile His Pro
          20             25             30

Thr Leu Glu Met Gln His Leu Cys Gly Arg Leu Phe His Lys Pro Pro
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Arg Leu Leu Arg Leu Gly Arg Tyr
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<210> 1675

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20 25 30
Leu Lys Ala Leu Asn Val Cys Ile Ala Thr Xaa His Gln Ile Leu Asn
35 40 45
Gly Leu Ser Phe Gly Trp Asn Tyr Lys Leu Lys Lys Cys Phe Ser Gly
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Lys
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1 5 10 15
Val His Ile Asn Asn Arg Val Tyr Asp Leu Asp Val Gly Ser Gly His
20 25 30
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35 40 45

1733

Ser Tyr Val Ile
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Lys Lys Lys Lys Lys Lys Gly Gly Arg Xaa Lys Gly Ser Lys Leu Thr

1734

20 25 30

Tyr Xaa Cys Met Xaa Arg Xaa Ser
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20 25 30
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Thr

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Leu Leu Lys
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1735

<400> 1680

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<210> 1681

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<210> 1682

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 20 25 30

 Ile Thr Asn Xaa Leu Ala Pro Leu Thr Ser Pro Pro Leu Ser Gln His
 35 40 45

 Lys Asn Thr Pro Glu Tyr Pro Ala Ile Ile Thr Leu Trp Pro Tyr Xaa
 50 55 60

 Ile Ile Phe His Thr Arg Xaa Asn Asn Glu Pro Pro Ser Xaa Leu Xaa
 65 70 75 80

 Lys Gly Asn Phe Xaa
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<210> 1683
 <211> 53
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 1 5 10 15

 Lys Ile Asn Pro Arg Ser Thr Glu Ala Ala Ile Lys Tyr Phe Leu Thr
 20 25 30

1737

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35 40 45

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20 25 30

Glu Gly Asp Glu Ile Ser Ile His Ala Asp Phe Glu Asn Thr Cys Ser
35 40 45

Arg Ile Val Val Pro Lys Ala Ala Ile Val Ala Arg His Thr Tyr Leu
50 55 60

1738

Ala Asn Gly Gln Thr Lys Val Leu Thr Gln Lys Leu Ser Ser Val Arg
 65 70 75 80
 Gly Asn His Ile Ile Ser Gly Thr Cys Ala Ser Trp Arg Gly Lys Ser
 85 90 95
 Leu Arg Val Gln Lys Ile Arg Pro Ser Ile Leu Gly Cys Asn Ile Leu
 100 105 110
 Arg Val Glu Tyr Ser Leu Leu Ile Tyr Val Ser Val Pro Gly Ser Lys
 115 120 125
 Lys Val Ile Leu Asp Leu Pro Leu Val Ile Gly Ser Arg Ser Gly Leu
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<400> 1685

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tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
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<210> 1689

<211> 271

<212> DNA

<213> Homo sapiens

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 gccctaact ccgcccagtt ccgcccattc tccgcccacat ggctgactaa ttttttttat 180
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ccatctcaat tag 73

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cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240
cttttgcaaa aagctt 256

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12P 19/34

US CL : 435/91.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/91.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

MEDLINE, SCISEARCH, GenEmbl Database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-------------------------------------|
| Y | Database GenEmbl on STN. KELKER, W. 'Sequence of human E-cadherin cDNA', GenEmbl Database, Accession Z18923.1, Version Z18923.1 GI:31074, 04 December, 1992 (04.12.1992), see nucleotide position 456-1007. | 1-12, 14-16, and 21 for SEQ ID NO:1 |
| Y | BANERJI, J. A gene pair from the human major histocompatibility complex encodes large proline-rich proteins with multiple repeated motifs and a single ubiquitin-like domain, Proc. Natl. Acad. Sci. USA, 1990, Vol 87, pages 2374-2378, see entire document. | 1-12, 14-16, and 21 for SEQ ID NO:2 |
| Y | Database GenEmbl on STN. SKUCE, C. 'Homo sapiens chromosome 20 clone RP4-661120 map q11.23-12', GenEmbl Database, Accession AL031669, Version AL031669.18 GI:6983365, 11 FEBRUARY, 2000 (04.02.2000), see nucleotide position 63147-63482. | 1-12, 14-16, and 21 for SEQ ID NO:3 |
| Y | Database GenEmbl on STN. RAKER, V.A. 'Human SnRNP core protein Sm D2 mRNA, complete cds', GenEmbl Database, Accession U15008, Version U15008.1 GI:600747, 10 December, 1994 (10.12.1994), see nucleotide position 23-479 | 1-12, 14-16, and 21 for SEQ ID NO:4 |
| Y | Database GenEmbl on STN. ELLER et al. 'Cellular retinoic acid-binding protein [human, skin, mRNA, 735 nt]', GenEmbl Database, Accession S74445, Version S74445.1, GI:241541, 7 May, 1993 (07.05.1993), see nucleotide position 7-733. | 1-12, 14-16 and 21 for SEQ ID NO:6 |



Further documents are listed in the continuation of Box C.



See patent family annex.

| Special categories of cited documents: | |
|---|--|
| * "A" document defining the general state of the art which is not considered to be of particular relevance | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "E" earlier application or patent published on or after the international filing date | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "O" document referring to an oral disclosure, use, exhibition or other means | "&" document member of the same patent family |
| "P" document published prior to the international filing date but later than the priority date claimed | |

Date of the actual completion of the international search

03 May 2000 (03.05.2000)

Date of mailing of the international search report

26 JUL 2000

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks

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Authorized officer

Michael Woodward

Telephone No. (703) 308-0196

James Brudgers

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

C (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|--------------------------------------|
| Y | Database GenEmbl on STN. SHARMA et al 'Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds.', GenEmbl Database, Accession M30471, Version M30471.1 GI:178133, 5 October, 1995 (05.10.1997), see nucleotide position 2-2277. | 1-12, 14-16, and 21 for SEQ ID NO:8 |
| Y | Database GenEmbl on STN. ABEDINIA, M. 'Human transketolase (TKT) mRNA, complete cds.', GenEmbl, Accession U55017 M86521, Version U55017.1 GI:1297296, 6 May, 1996 (06.05.1996), see nucleotide position 687-2038. | 1-12, 14-16, and 21 for SEQ ID NO:10 |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05882

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-12, 14-16, and 21 for the first 10 sequences in Table 1

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1.

Group 1, claims 1-12, 14-16, and 21 in so far as they are drawn to the first ten polynucleotides of Table 1 (pages 12-118), protein, vector, gene, method of making host cell, recombinant host cell, method of producing the protein of SEQ ID NO:61.

Groups 2-209, claims 1-12, 14-16, in so far as they are drawn to the next 208 polynucleotide groups (any four sequences constitute a single group) and encoded proteins listed in Table 1.

Groups 210-418, claim 13, in so far as they are drawn to isolated antibodies that bind to any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 419-627, claims 15-16, in so far as they are drawn to a method of making any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 628-836, claim 17, in so far as they are drawn to a method of treatment by administration any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 837-1045, claim 18, in so far as they are drawn to a method of diagnosing a pathological condition by determining a presence or absence of a mutation in any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1046-1255, claim 19, in so far as they are drawn to a method of diagnosing a pathological condition by determining the presence or amount of any one group of the next 208 polypeptide sequence groups listed in Table 1.

Groups 1256-1465, claims 20 and 23, in so far as they are drawn to a method of identifying any one group of the next 208 polypeptide sequence groups listed in Table 1, and the product produce by the same method.

Group 1466-1675, claim 22, in so far as they are drawn to a method of identifying an activity in a biological assay by expression of any one group of the next 208 polypeptide sequence groups listed in Table 1.

The inventions not elected, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, the non-elected groups lack the same or corresponding technical features for the following reasons: Group 1 corresponds to the first invention wherein the first product is the polynucleotide, and the first method of use is the method of using the polynucleotide to make the protein, and the protein. Note, there is no method of making the polynucleotide. Each of groups 2-1675 does not share the same or corresponding special technical feature because, each group is drawn to different polynucleotide or encoded protein. Additionally, each of groups 210-1675 does not share the same or corresponding technical feature because, each group is drawn to different compounds or methods of using any of the fifty polynucleotides and encoded proteins listed in Table 1. The Authority therefore considers that the several inventions do not share a special technical feature within the meaning of PCT Rule 13.2 and thus do not relate to a single general inventive concept within the meaning of PCT Rule 13.1.